

WITH SPECIAL MOTOR EXHIBITION SUPPLEMENT.

THE ILLUSTRATED LONDON NEWS 1/6

THE POPULARITY OF THE "U.K." TEAS

IS LARGELY DUE TO THEIR DISTINCTIVE QUALITY—THE RESULT OF
EXPERIENCED SELECTION AND SCIENTIFIC BLENDING

SENT ABROAD FREE OF ENGLISH DUTY

UNITED KINGDOM TEA CO., LTD., 1, PAUL ST., LONDON, E.C.2

TEA MERCHANTS BY APPOINTMENT TO HIS MAJESTY THE KING AND TO HER MAJESTY QUEEN ALEXANDRA

DINNEFORD'S MAGNESIA.

Many Celebrated Physicians

during the past **100 years** have regularly prescribed DINNEFORD'S MAGNESIA.

Dr. CONQUEST, Physician to the City of London Lying-in Hospital, writes:—

"I have been much pleased with Dinneford's Magnesia . . . the profession and the public are indebted to you for a highly valuable addition to our list of medicines. As an agreeable mild aperient, it cannot fail to supersede many now in use."

Eminent chemists have proved that powdered Magnesia is liable to form hard, insoluble lumps in the bowels. No such risk arises from the use of **DINNEFORD'S MAGNESIA.**

Absolutely Safe. Cures GOUT, RHEUMATISM, GRAVEL

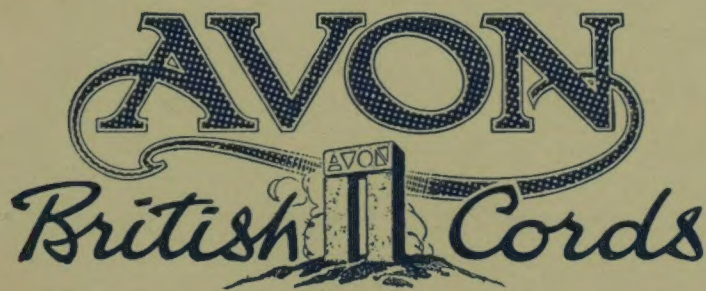
The universal remedy for ACIDITY OF THE STOMACH, HEAD-ACHE, HEARTBURN, SOUR ERUCTATIONS, BILIOUS AFFECTIONS.

AVOID IMITATIONS.

Look for the name "DINNEFORD'S" on bottle and label.

Price 1/3 and 2/6 per bottle.

Visit Stand 515 at Olympia and see



Standard tyres (beaded edge and straight-side); 'Comfort' Tyres; Step Mats, etc.



PARIS
ST. LAZARE STATION

Telegraphic Address:
TERMINUS - PARIS

HOTEL TERMINUS

500 BEDROOMS WITH BATH OR RUNNING WATER

ENTIRELY RENOVATED

IN DIRECT
CONNECTION
WITH THE
PLATFORMS
OF THE
SAINT LAZARE
STATION



By Appointment

ELKINGTON PLATE

ELKINGTON & CO., LTD., Silversmiths & Jewellers,
22, Regent St. 73, Cheapside. LONDON. Birmingham, Liverpool, Glasgow.

Catalogue
on request.

The Original and most perfect
substitute for Sterling Silver.

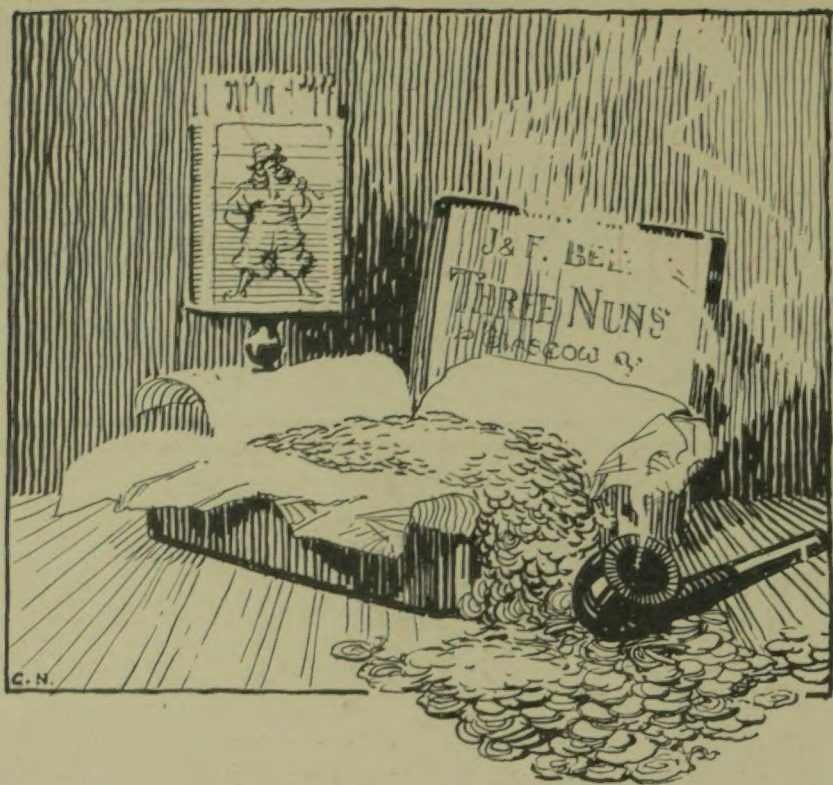
ST. MORITZ

The Original Home of Winter Sports

ENGADINE,
SWITZERLAND
6000 feet.

The Leading Hotels
with Private Ice Rinks.

THE GRAND HOTEL
THE KULM HOTELS
THE SUVRETTA
THE PALACE
THE CARLTON



It's mainly in the cut

Right down to the bottom of the bowl you may smoke Three Nuns with undiminished enjoyment. No shred of this fine and fragrant tobacco is wasted in the pipe, no particle of dust is formed in the pouch.

The "curious cut" of Three Nuns — each circlet a perfect blend of the very finest grades of leaf — prevents such waste. That is why Three Nuns at 1s. 2d. an ounce is essentially an economical tobacco to smoke. It burns slowly, so that a pipeful lasts longer than a pipeful of most other tobaccos. And again because of the cut—it is one of the coolest smokes you can get.

You may pay more than the Three Nuns price, and get no better tobacco; you may pay less, and get none cheaper.

THREE NUNS

The Tobacco of Curious Cut

In Packets:
1 oz. 1½; 2 oz. 2¼

In Tins:
2 oz. 2¼; 4 oz. 4⁄8

King's Head is similar but a little fuller.

Stephen Mitchell and Son, Branch
of the Imperial Tobacco Company
(of Great Britain and Ireland), Ltd.,
36, St. Andrew Square, Glasgow.



United for Service

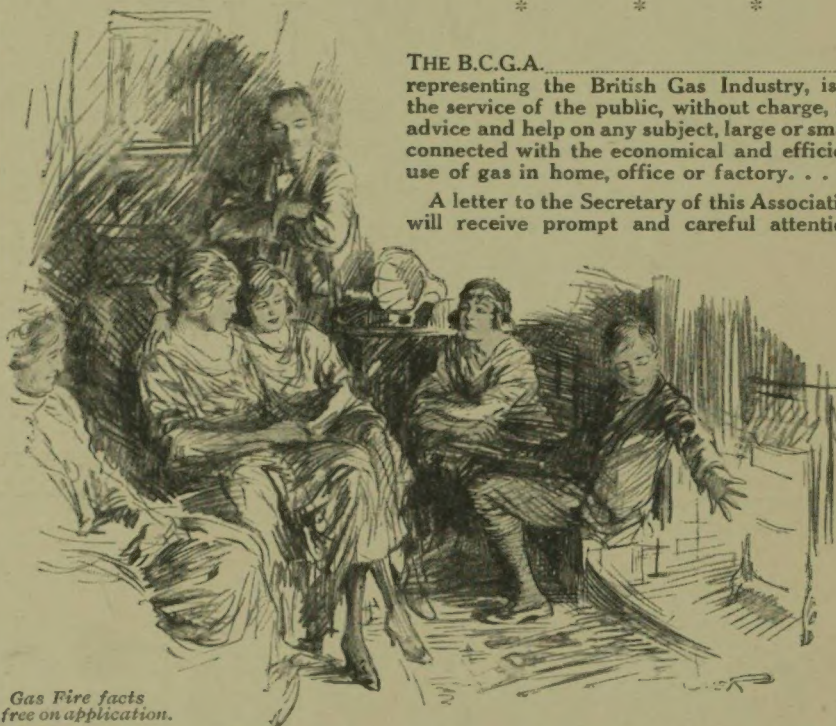
What a Cheerful Room!

The heart gives a leap of pleasure as you enter — where beneath dainty shades gaslight in all its brilliant softness pours, and cosy warmth steals from the radiant gas fire to enfold you.

A room where you can "listen-in" in luxury, a room to work in, to rest in, to sing in—the sanctuary of fireside happiness.

THE B.C.G.A. representing the British Gas Industry, is at the service of the public, without charge, for advice and help on any subject, large or small, connected with the economical and efficient use of gas in home, office or factory. . . .

A letter to the Secretary of this Association will receive prompt and careful attention.



Gas Fire facts
free on application.

Br8

THE BRITISH COMMERCIAL GAS ASSOCIATION
30, GROSVENOR GARDENS, WESTMINSTER, S.W.1

EIGHTY-FIVE YEARS' EXPERIENCE

ALMOST a Century—from the paddle boat to the great 1924 Liner. *That means experience.* Growth from a tonnage in 1839 of 30,000 to a tonnage, with Associated Companies, of over 2,000,000 in 1924. *That means success.* It means success that comes of long experience united with progressive methods. Both are part of "Royal Mail and Pacific Line" tradition—good may yet be better, First-Class must be super-First Class—always for the benefit of the passenger.

To NEW YORK, CANADA & SOUTH AMERICA by:—

THE ROYAL MAIL AND PACIFIC LINES

LONDON: Atlantic House, Moorgate, E.C.2,
America House, Cockspur Street, S.W.1

LIVERPOOL: Goree, Water Street.

MANCHESTER, GLASGOW, BIRMINGHAM, and
SOUTHAMPTON

RECEPTION

POSTICHE

TINTING

ATTENDANCE

PERMANENT WAVING

HAIR TREATMENT

BEAUTY

LONDON **EMILE** OF CONDUIT ST PARIS

Emile's Extensions Completed.

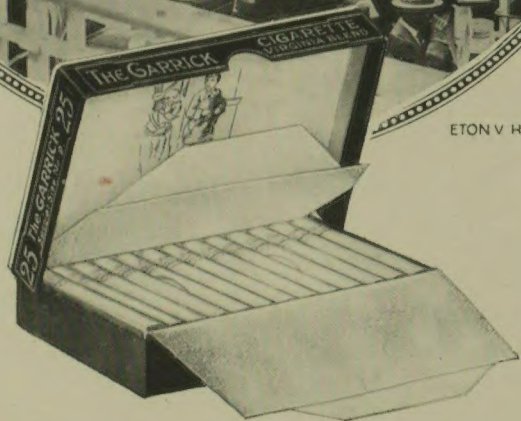
The latest extension which Emile's have just completed to their London Premises consists of 13 new Salons (making 40 in all) together with the necessary extra Workrooms and Offices, which will now provide the further accommodation that has for some time been required to adequately deal with the increasing business.

Situated as they are in the midst of the homes of London's Aristocracy, Hairdressing and the hygienic care of the hair naturally claim a very large part of their work, and it is for these branches that the additions have been specially made, in order to meet without difficulty the pressure of the busiest seasons.

Ladies are invited to write for special Souvenir, "Reminiscences of a Court Coiffeur," sent post free, or to make a tour of inspection, when they will be cordially welcomed.



ETON V HARROW



Where Quality counts—
The
GARRICK
 Virginia Blend
 Cigarette

10 FOR 10d *Special* *25 FOR 2/-*
Size No. 2

reigns supreme

LAMBERT & BUTLER,
 ENGLAND

Branch of The Imperial Tobacco Co. (of Great Britain & Ireland) Ltd.



BURBERRY WINTER SPORTS DRESS

provides enthusiasts with the most protective and comfortable equipment. Distinguished Ski-ing, Skating and Tobogganing experts are consulted, with the result that Burberry models embody the latest tips and combine to perfection all that is desirable to obtain the fullest enjoyment from Winter Sports.

SNOW- WET- AND WIND-PROOF

yet lightweight and faultlessly self-ventilating, Burberry materials—a wide choice of beautiful colours—withstand the roughest wear and are especially woven with smooth surfaces to which snow cannot cling.

Winter Sports Catalogue and Patterns Post Free

SPECIAL DISPLAY OF WINTER SPORTS DRESS

including models for Men, Women and Children,
 will be held at Haymarket, daily from
Monday, Oct. 20th to Friday Oct. 24th.

MANNEQUIN PARADES

11 a.m. to 1 p.m. and 3 p.m. to 5 p.m. each day.

BURBERRYS

HAYMARKET S.W.1 LONDON

Burberrys Ltd.

THE PRODUCTS OF
SHETLAND AND FAIR ISLE.



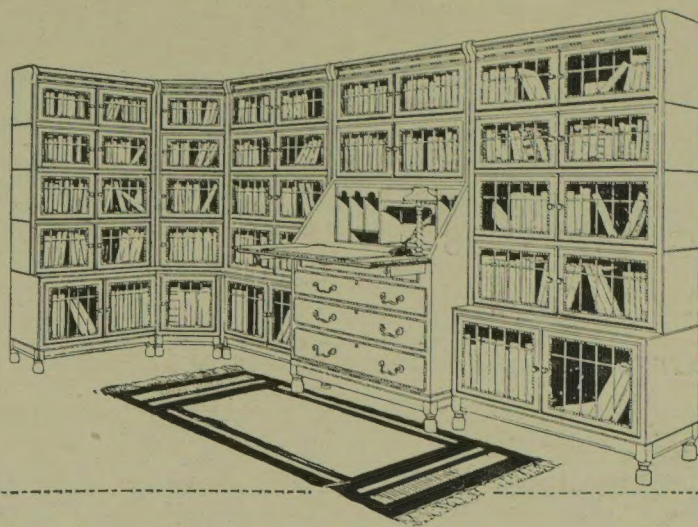
Genuine Hand Knit
Pure Shetland Wool
All-over Fair Island
JUMPER

Grey. White, Fawn or Moorit ground.

Price 80/-

Send for free Catalogue.
Goods sent on approval.

A. F. SHETLAND INDUSTRIES
92, George Street, Portman Square, London, W. 1.



It is in the power of being suited to various situations and needs that the Minty Sectional Bookcase has proved its worth. Satisfying to the home-lover's eye, it has a refined appearance far removed from the American "office-style" bookcase with its external metal devices.

MINTY'S OXFORD VARSITY SECTIONAL BOOKCASE

Whatever the proportions of a room, or the space available, there is a Minty to correspond, in various "period" designs. Only highly skilled British craftsmen are employed; and the finest seasoned hardwoods. The casement doors, easily operated, exclude all dust and dampness. The Minty is a saver of space; it always retains its original atmosphere, however adapted or extended.

Write for **NEW ILLUSTRATED CATALOGUE**
containing fullest particulars of **MINTY Bookcases**,
including various "period" styles, at moderate prices.

MINTY (Dept. 20), 44-45, High St., OXFORD
London Showrooms: 36, SOUTHAMPTON ST., STRAND, W.C.

SESSEL PEARLS



SESSEL PEARL COLLIER
16 inches long, with 18 Carat Gold Clasp,
£4 4s.

SESSEL PEARLS are
the finest reproductions existing. They are made by a secret and scientific process, which imparts to them the same sheen, delicacy of tone, texture, and durability of genuine Oriental Pearls.

SESSEL (Bourne, Ltd.)
14 & 14a, New Bond Street, W.1
Illustrated Brochure No. 9, sent on request.
(No agents.)

"A Splendid
recommendation."

"This is the
second baby I
have brought up
on Mellin's Food,
and everyone who
sees them agrees
that they are the
picture of health,
and a splendid
recommendation
for Mellin's Food."

Mrs. G. M. Hibbs,
London, E.5



FREE—Send
this coupon
with your name
and address and
baby's age to
Mellin's Food
Ltd., (Dept.
D193,) London,
S.E. 15, and
you will receive
by return a
sample of
Mellin's Food
and Booklet.

Baby's Food makes all the difference

Right feeding is by far the most important thing in infancy, and you simply must get the right food if baby is to make progress. Remember also that one of the essentials to right feeding is digestibility, which is provided by Mellin's Food.

Infants from birth onwards assimilate a Mellin's Food diet perfectly, and in this way splendid all-round development is assured. Just as breast milk provides the nourishment for bones, flesh and nerves, so does Mellin's Food, when mixed to suit the age of baby.

Mellin's Food

THE FOOD THAT FEEDS

MELLIN'S LACTO—prepared from Mellin's Food and rich cow's milk—only requires the addition of water to be ready for use. A complete food, it is the ideal substitute for breast milk where fresh cow's milk is unobtainable or is poor in quality.

MELLIN'S FOOD BISCUITS—which contain Mellin's Food, are invaluable during the weaning period, whether Baby has been hand-reared or breast-fed.

Fine Gems

A rich and varied selection, supreme in
Quality and Value

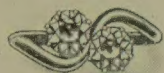


Ruby and Diamond.
All Platinum
£22 10 0

Jewellery
Salon
Ground
Floor



Ruby and Diamond,
two-row Cluster.
All Platinum
£32 10 0



Diamond Cross-over.
All Platinum
£65 0 0

Ruby and Diamond.
All Platinum
£45 0 0



Fine Diamond.
All Platinum.
Diamond shoulders
£31 10 0



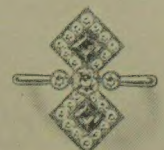
Fine Sapphire.
All Platinum.
Diamond shoulders
£36 10 0



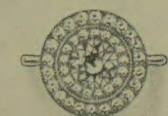
Finest Quality All-
Diamond.
All Platinum
£125 0 0



Fine Burma Ruby.
All Platinum.
Diamond shoulders
£60 0 0



Sapphire and
Diamond.
All Platinum
£28 10 0



Diamond Cluster.
All Platinum
£67 10 0



Sapphire and
Diamond.
All Platinum
£32 0 0

Illustrations
are actual size

HARRODS

HARRODS LTD.

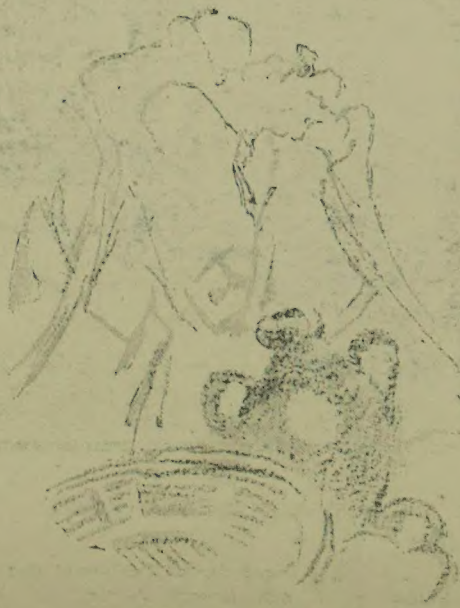
LONDON, S.W.1.

“LIKE WASHING BUSHELS
OF SAND FOR A GRAIN
OF GOLD.”—SCOTT.

AN APT DESCRIPTION OF THE
PROCESS WHICH SELECTS EVERY
ELEMENT IN THE MAKING OF

Maison Lyons Chocolates

FOUR SHILLINGS PER LB.
SOLD BY GOOD CONFECTIONERS
EVERYWHERE—
AND IN THE SALONS OF
MAISON LYONS; CORNER HOUSES
AND IN LYONS' TEASHOPS



THE ILLUSTRATED LONDON NEWS

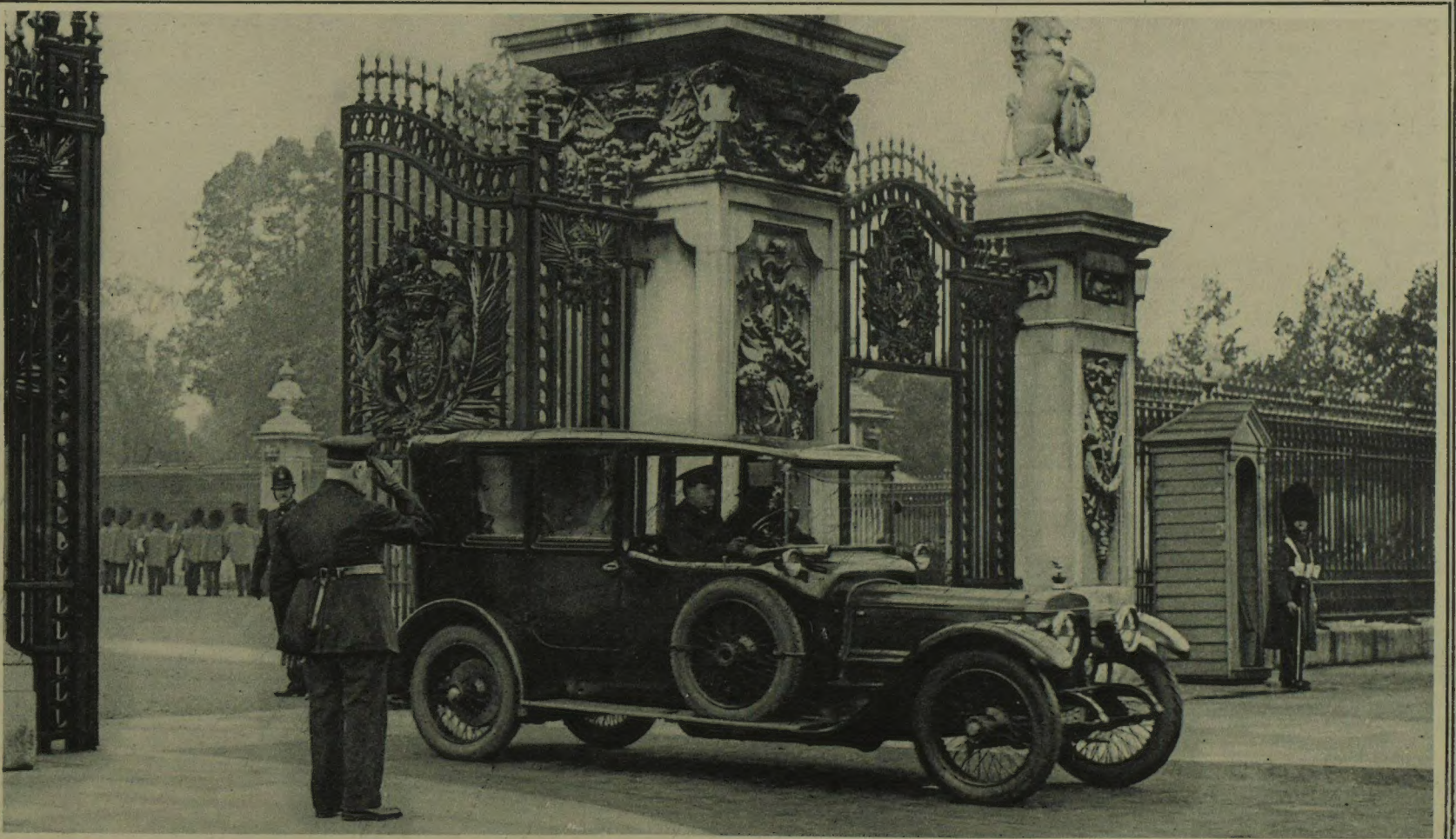
REGISTERED AS A NEWSPAPER FOR TRANSMISSION IN THE UNITED KINGDOM AND TO CANADA AND NEWFOUNDLAND BY MAGAZINE POST.

SATURDAY, OCTOBER 18, 1924.

The Copyright of all the Editorial Matter, both Engravings and Letterpress, is Strictly Reserved in Great Britain, the Colonies, Europe, and the United States of America.



ON FOOT, AND FOLLOWED BY AN INTERESTED CROWD: MR. RAMSAY MACDONALD ON HIS WAY TO THE HOUSE OF COMMONS TO ANNOUNCE THE DISSOLUTION OF PARLIAMENT.



IN HIS FAMOUS CAR: MR. RAMSAY MACDONALD LEAVING BUCKINGHAM PALACE AFTER HIS AUDIENCE OF THE KING, WHO GRANTED THE PREMIER'S REQUEST FOR A DISSOLUTION.

On October 9, the day following the defeat of the Labour Government over the Liberal amendment to the Conservative Vote of Censure, the Prime Minister, Mr. Ramsay Macdonald, visited Buckingham Palace at 10 a.m. for an audience of his Majesty, who had reached London from Balmoral two hours before, in view of the political crisis. The audience lasted for an hour, and the Premier

on leaving announced that his request for a Dissolution of Parliament had been granted. He drove to the Palace in his now famous Daimler car. After attending a Cabinet meeting, Mr. Ramsay Macdonald walked to the House of Commons from Downing Street, and announced the forthcoming Dissolution. On the previous evening he had suffered from an acute attack of toothache.

PHOTOGRAPHS BY TOPICAL AND I.B.



By G. K. CHESTERTON.

THE signs of the resurrection of Spain, of which I think there are many to be seen lately, have turned my thoughts to certain subtleties in the tradition of that land. They are things so subtle that they always appear to be simple. One of them is the tradition of chivalry and the double attitude towards it which we connect with the name of Don Quixote. There is no more fantastic paradox in all history than the life and work of Cervantes. He is generally recognised as having written a book to show that romantic adventures are all rubbish and do not really happen in this world. As a matter of fact, the one man in this world to whom romantic adventures were incessantly happening was the author of "Don Quixote." He covered himself with glory and lost his right hand at the most romantic battle in history—when the Crescent and the Cross met in the blue Mediterranean by the Isles of Greece, trailing all their pageants of painted and gilded ships with emblazoned sails. He was just about to receive public recognition from the victor, Don John of Austria, when he was kidnapped by pirates. He organised a series of escapes, each like the ideal adventure of a schoolboy; he organised supplies and comforts for his fellow-prisoners with the laborious altruism of a saint. As men go, he was really a pretty perfect pattern of the knight of chivalry; eventually he escaped and returned home to write a book showing that chivalry was impossible. At least, that is what three rationalistic centuries have taken it as showing. But I think the time has come to dig a little deeper in that stratified irony, and show the other side of Cervantes and chivalry.

Hero-worship has fallen out of fashion with Carlyle, who forced it into fashion. But in the case of Carlyle there were circumstances that were a needless handicap to hero-worship, and even to heroism. Carlyle set himself the impossible task of making heroes out of the successful men of history and politics. It was not much more hopeful than that of making heroes out of the successful men in soap or petrol. In one sense that sort of hero-worship is heroic, in the sense of being impossible. The task is heroic because the subject is unheroic. In Carlyle's characteristic work it soon ran into absurdity. It reached the point of praising Frederick the Great—a form of hero-worship which is clearly a *reductio ad absurdum*, and even almost a contradiction in terms. The character of Cromwell had more human elements; but what was best in it was human and emphatically not heroic. The best case for Cromwell is that he was a moderately sane man in a very insane age. His best work was done as a moderator and maker of compromises; not as an originator or inspirer of enthusiasms. He saved works of art which the wilder Puritans would have destroyed; but we cannot picture him as a great patron of art in the sense of a friend of artists. He insisted that there must be good pay for good soldiers; but he was not the sort of man to be a romance to his own soldiers, like Napoleon. He was a seventeenth-century English squire, whose family had grown rich in the great pillage; and morally he was no worse than most of his kind, and perhaps better than many of them. He was certainly much better than Frederick the Great, whom Carlyle made even more of a hero, and even a god.

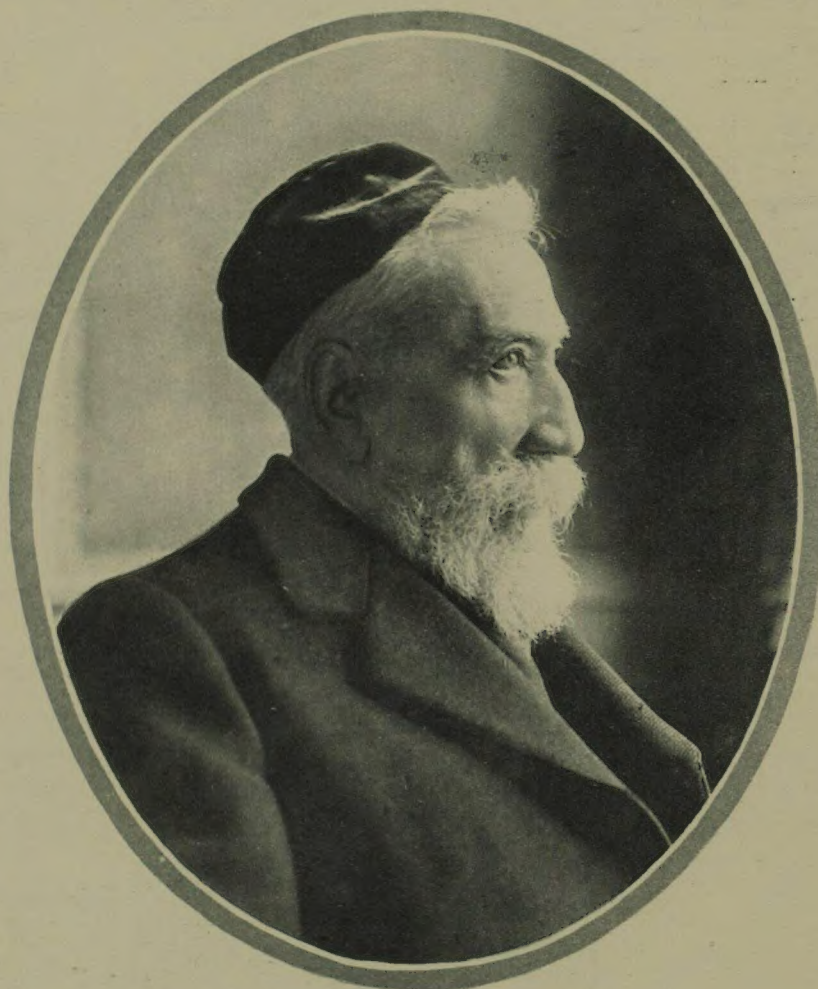
The worship of Frederick the Great can hardly be called hero-worship. It is rather devil-worship softened by a touch of monkey-worship. It is superstition and therefore heresy to say such things seriously, but we may say symbolically that, if a demon

could enter the body of a monkey, the result might be something like Frederick II. of Prussia. It is not only true that he had a large mind and a small soul. It might almost equally truly be said that he had a large brain and a small mind. Even his intellectual pride was petty. Moreover, he was in another sense curiously like a monkey. He was an imitator. As the old mystics used to say that the devil was the ape of God, we might more literally say that Frederick II. was the ape of Louis XIV. But just as the monkey imitates the man without understanding the man, just as the ape can copy an action that he cannot comprehend, so the Prussian had nothing of the national and civilised quality of the Frenchman. He substituted a new impudence and malignity for the last trailing traditions of mediæval chivalry and Roman law. But Carlyle had to make a hero of him,

less romantic, than Carlyle made it out. The hero may sometimes have lost his campaign, but he won his battles. And he can often be seen winning his battles single-handed like the most legendary knight winning his spurs. Chivalry really did succeed in doing the impracticable things, even when it failed to do the practical things. We may differ or feel doubtful about the ultimate success, or even the ultimate value, of various policies pursued in the past; but nobody can doubt the thrill and enthusiasm and courage of the pursuit. The only really reliable part of history is the romance of it.

For instance, Godfrey de Bouillon died young, wasted by a fever that might have been cured in more sanitary conditions and wearied with a problem which was perhaps almost insoluble. That is a tragedy of the modern sort; it may well be said that his life was a failure; it might be said that the Crusades were a failure. We might argue about whether he was a maker, a builder, a man who can, or any of the Carlylean descriptions. For those depend on elaborate historical results which arise later; and the end of everything arrives sooner or later. It is disputable whether Richelieu was a successful man, since the French monarchy went down in the French Revolution. It is disputable whether Frederick the Great was a successful man, since Prussianised Germany went down in the Great War. So it is disputable whether Godfrey was a successful man, since the Latin Kingdom of Jerusalem went down in the disaster of Hattin. What is quite indisputable is that Godfrey was a hero of romance, a hero of the wildest and most improbable romance, a hero behaving as heroes behave in the extravagant romances of chivalry. What is certain is that he, the Commander-in-Chief of the whole military system of Europe in the East, did really behave in the manner of Dick Dauntless among the Redskins or How a Powder-Monkey Foiled the Pirates. It is a cold and concrete fact that he was himself the first to leap from the battle-tower on to the Saracenic turrets, exactly as the boy who ran away to sea is the first to leap from his battle-ship on to the slaver's deck. All that part of the business that was a statesman's calculation may or may not have been falsified. All that part of it that was like a schoolboy's daydream came true.

There are any number of other examples of the kind. Nelson is too near to us for us to be certain of the duration of his practical achievement; but the nearer we are to him the less doubt we have of his purely poetical achievement. Near as he is to us, he is nearer still to the morning of the world, and has the colour and the clear outline that belongs to the primitive legends of the dawn. We do not know how long the naval leadership of England will last; but we do know that the legend will last. We do not know how far aviation has altered everything; or how far politicians would go in the direction of scrapping the British Navy. But we do know that Nelson could hardly have been a more mythical figure if he had flown upon wings; or that his ship might have been a fairy ship and hardly shone more strangely on the storied sea. The things that are quite certain about Nelson are all the improbable things: that he died in the very hour of triumph; that he died on a vessel that bore the very name of victory; that he was shot through wearing the flaming stars with which he had just offered to die in honour—all the coincidences that would be called crude and far-fetched in a story. They are the fancies that are considered a little too romantic for historical fiction. They are also the only fixed facts of history.



A GREAT FRENCH WRITER—WIT, SCEPTIC, AND HUMOURIST. THE LATE ANATOLE FRANCE IN THE EVENING OF HIS DAYS.

M. Anatole France, the most eminent of modern French authors, was born in Paris, the son of a learned bookseller and bibliophile, in 1844, and published his first work, "Alfred de Vigny," in 1868. Many others followed. Among the most famous works of his earlier phase are "Le Crime de Sylvestre Bonnard," "Thaïs," "La Rôtisserie de la Reine Pédauque," and "Le Jardin d'Épicure." His later period, during which he became anti-militarist, anticlerical, and Socialistic, is represented by such works as his "Histoire Contemporaine," "Crainquebille," "L'Île des Pingouins," "La Révolte des Anges," and "Vie de Jeanne d'Arc." He was twice married—first, to a great-niece of Jean Guérin, the miniature-painter, and secondly, in 1920, to Mlle. Emma Laprévotte. In 1921 he was awarded the Nobel Prize for Literature. An earlier portrait of him was given in our last issue.

Photograph by Henri Manuel.

on his own theory of the heroism of success. Frederick had nothing else except success—not even the power to enjoy it.

But when we have got rid of this sort of hero-worship, we may really come back to heroes. There really were heroes who were historical characters, though they were not generally successful men. More often the true hero was a tragic hero. But while his tale was often a tragedy in so far as he failed, it was often a wildly impossible romance in the moments when he triumphed. The curious thing is that real history is much more romantic, and not

OUR ANAGLYPHS.

Readers who have not yet obtained one of the special masks for viewing our Anaglyphs in stereoscopic relief may do so by filling up the coupon on page 752, and forwarding it with postage stamps value three-halfpence (Inland), or twopence-halfpenny (Foreign), addressed to "The Illustrated London News" (Anaglyph), 15, Essex Street, London, W.C.2.

THE "RUSH" GENERAL ELECTION: OFFICIAL AND PARTY ACTIVITIES.

PHOTOGRAPHS BY L.N.A., CENTRAL PRESS, PHOTOPRESS, "DAILY MAIL," C.N., AND TOPICAL.



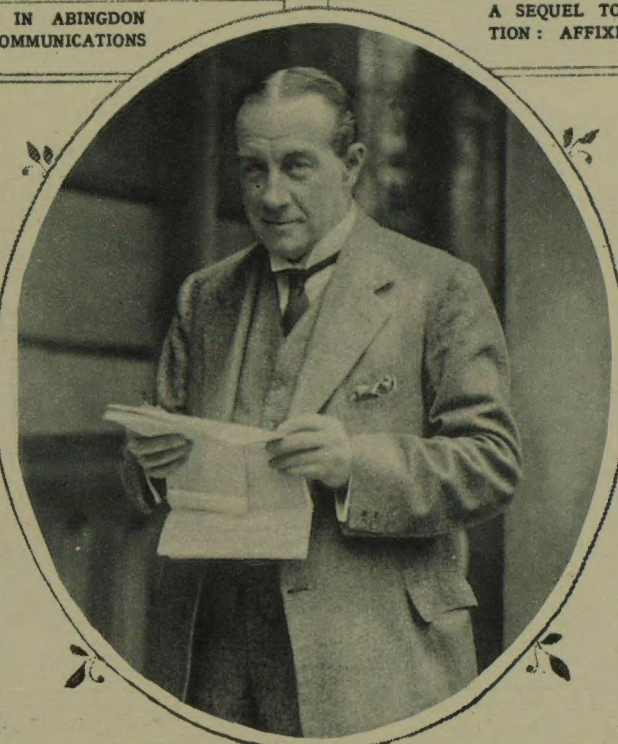
A BUSY SCENE AT THE LIBERAL HEADQUARTERS IN ABINGDON STREET, WESTMINSTER: TELEPHONING, TYPING, AND COMMUNICATIONS BY EXPRESS MESSENGER.



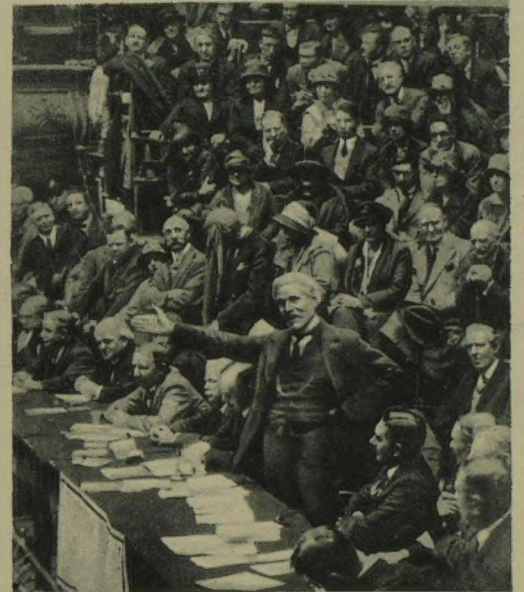
A SEQUEL TO THE ANNOUNCEMENT OF AN EARLY GENERAL ELECTION: AFFIXING THE GREAT SEAL TO A WRIT IN THE CROWN OFFICE OF THE HOUSE OF LORDS.



OLD-TIME CEREMONIAL IN THE CITY: READING THE ROYAL PROCLAMATION DISSOLVING PARLIAMENT FROM THE STEPS OF THE ROYAL EXCHANGE.



THE LEADER OF THE CONSERVATIVE PARTY: MR. STANLEY BALDWIN READING THE PARTY'S MANIFESTO AT HIS HOUSE IN EATON SQUARE.



THE LABOUR PARTY CONFERENCE: MR. RAMSAY MACDONALD (SPEAKING), MR. CLYNES (NEXT BUT ONE), MR. J. H. THOMAS, AND LORD PARMOOR.



CONSERVATIVES IN COUNCIL: (L. TO R.) SIR D. HOGG, SIR W. JOYNSON-HICKS, MR. L. S. AMERY, LORD CAVE, LORD SALISBURY, LORD CURZON, MR. BALDWIN, MR. AUSTEN CHAMBERLAIN, AND LORD BIRKENHEAD.



LIBERAL LEADERS IN CONCLAVE AT THE PARTY HEADQUARTERS: (FROM LEFT TO RIGHT AT THE TABLE) MR. LLOYD GEORGE, MR. ASQUITH, SIR ALFRED MOND, AND DR. MACNAMARA.

After the announcement of the Dissolution there was feverish activity in all the offices of the three parties, for seldom, if ever, has so short a time been left to prepare for a General Election. The dates fixed are Saturday, October 18, for nominations; Wednesday, October 29, for polling; and the 29th and 30th for declaration of results. The Royal Proclamation, signed by the King on the 9th, for dissolving the present Parliament, and declaring the calling of another, concluded as follows: "And We do hereby also, by this Our Royal Proclamation

under Our Great Seal of Our United Kingdom, require Writs forthwith to be issued accordingly by Our said Chancellor and Governor respectively, for causing the Lords Spiritual and Temporal and Commons who are to serve in the said Parliament to be duly returned to, and give their Attendance in, Our said Parliament on Tuesday, the Eighteenth day of November next, which Writs are to be returnable in due course of Law." The Proclamation was read at the Royal Exchange by Capt. C. B. Maxted, Common Crier and Serjeant-at-Arms for the City.

WHERE SOLDIERS USE UMBRELLAS ON ACTIVE SERVICE: THE CHINESE CIVIL WAR—SKETCHES AT THE FRONT NEAR SHANGHAI.

SKETCHES BY "SAPAJOU" WAR-ARTIST OF THE "NORTH CHINA

DAILY NEWS" (SHANGHAI), SUPPLIED BY R. W. DAVIS.



ONE PHASE OF THE CHINESE CIVIL WAR ENDED BY THE SURRENDER OF THE CHEKIANG

The fighting between the Tsuchuns (military governors) of the provinces of Chekiang and Kiangsu came to an end (according to a Reuter message of October 13 from Shanghai) with the surrender of the Chekiang forces and the conclusion of an armistice. The Governor of Chekiang, General Lu Yung-Hsiang, and his chief-of-staff, Ho Feng-lin, were reported to have sailed for Japan in the "Shanghai Maru." The surrender was said to have been caused by the defection of one of the Chekiang generals, Chen Yao-Shan, commanding the sector west of the Taihu Lake, who went over to the Kiangsu side with a whole division, two miles from the boundary of the French concession at Shanghai. The French and other members of the Shanghai Volunteers were mobilised ready for emergencies, but it was believed that there was no danger to the foreign settlements, as the war was ending by defection and not as the result of a battle. The surrender was begun by the Chekiang troops on the Hwangtu-Luho front, who went over to the Kiangsu forces when they occupied Nansiang, eleven miles

ARMY AND FLIGHT OF ITS LEADER: SKETCHES MADE AT THE FRONT NEAR SHANGHAI.

west of Shanghai. The sketches here reproduced were made in that district, on the Luho front. Of Nos. 1 and 9 it is noted: "The country is dotted with tiny villages. The houses seen are of mud with bamboo reinforcing, tile roofs, and earthen floors. They afford cover, but no protection from rifle or machine-gun fire." The Chinese field-kitchen shown in No. 5 has a charcoal or wood fire beneath. The lid covers a bowl holding 10 to 15 lb. of boiled rice. A note on No. 7 says: "On September 9 five inches of rain fell in less than five hours. The country is flat, formed of silt deposited by the Yangtze River, and is principally paddy-fields. No trenches are possible. The floods consequently held up fighting very effectually." No. 10, a sketch made three miles from the front line, is described as "Reserves in an improvised shelter. Note the umbrellas, more important to the Chinese soldier than rifles." No. 12 shows a dressing station "a few thousand yards from the front, on the Luho road, the only road in that part of the country, connecting Luho with Shanghai, and unmetalled." The country seen beyond is flooded.—(Drawings Copyrighted in the United States and Canada.)

A COMBINATION OF SCIENCE AND BARBARITY: CHINESE WARFARE.

PHOTOGRAPHS NOS. 1 AND 2 SUPPLIED BY R. W. DAVIS ("NORTH CHINA DAILY NEWS," SHANGHAI); THE REST BY TOPICAL.



1. SINCE SURRENDERED TO THE KIANGSU FORCES: GUN-PITS OF THE CHE-KIANG ARMY IN FLOODED COUNTRY BETWEEN NANSIANG AND HWANGTU, ON THE SHANGHAI-NANKING RAILWAY.



2. CAMOUFLAGED BY A COVERING OF CLOTH: A FIELD-GUN ON THE HWANGTU FRONT OF THE CHEKIANG FORCES, WHO RECENTLY SURRENDERED TO THOSE OF KIANGSU.



3. WHILE BULLETS AND SMALL SHRAPNEL WERE SPATTERING ON THE ROOFS: TWO CHEKIANG SOLDIERS GUARDING A SMALL STREET BARRICADE IN LIUHO.



4. LEFT ALL DAY IN FULL VIEW OF SURVIVING COMRADES EATING AND SLEEPING A FEW YARDS AWAY: CHEKIANG SOLDIERS KILLED AT LIUHO.



5. KEPT TIED UP IN THIS PAINFUL POSITION FOR SEVERAL HOURS PENDING INTERROGATION: A MAN SUSPECTED OF SPYING.



6. AMMUNITION (OF WHICH LARGE QUANTITIES WERE USED WITHOUT MUCH EFFECT) BEFORE THE CHEKIANG HEADQUARTERS AT LIUHO: CASES OF KRUPP CARTRIDGES FROM ESSEN.



7. EXPENDING AMMUNITION: CHEKIANG TROOPS FIRING AT THE KIANGSU LINES THREE-QUARTERS OF A MILE AWAY, AT LIUHO, DURING THE FIGHTING ON AUGUST 30.

The fighting near Shanghai between the forces of Chekiang and Kiangsu ended recently with the flight of the Military Governor of Chekiang and the surrender of his army, as described on our double-page of sketches by a war artist at the front. The above photographs illustrate the same campaign. The notes supplied with the last five are as follows:—No. 3. "Chekiang soldiers guarding a small barricade in a street of Liuho. Bullets from the other side are spattering on the roofs and small shrapnel is popping constantly, though there is no attack." No. 4. "Dead Chekiang soldiers from fighting at Liuho on August 29. All the following day, they were left to lie in the open in full view of their surviving comrades, who were eating and sleeping within a few yards." No. 5. "This Chinese was

picked up by Chekiang soldiers in the fields between the fighting lines. On the chance that he might be a spy, he was tied up in this agonising manner, his toes barely touching the ground, and was left to groan for several hours before the Chekiang officers were ready to hear what he had to say for himself. Probably he was only a farmer driven from his home by the firing from both sides." No. 6. "Chekiang ammunition in front of the headquarters at Liuho. White labels seen on the cases were marked 'Cartridges. Class VI. Division 2. Made in Germany. Krupp. Essen.'" No. 7. "Chekiang troops firing at Kiangsu line, three-quarters of a mile away at Liuho on August 30." The campaign began on September 3 and lasted for nearly six weeks.

SINGING TO EIGHT THOUSAND: GALLI-CURCI'S FIRST LONDON APPEARANCE.

PHOTOGRAPHS BY I.B. AND G.P.U.



A RECORD AUDIENCE FOR THE MOST FAMOUS OF THE COLORATURA SOPRANO,

WOMEN "RECORD" SINGERS: MME. GALLI-CURCI, AT THE ALBERT HALL.

THE first appearance of Mme. Galli-Curci, the famous coloratura singer, at the Albert Hall, on Sunday, October 12, was the most remarkable musical event of the year. Mme. Galli-Curci has gained such an enormous reputation through the gramophone records of her voice that when the date of her first concert in London was announced at the beginning of this year, an unprecedented rush for seats took place, and the hall was almost immediately sold out. Just before the concert there was considerable private dealing in tickets, and some changed hands at really extraordinary sums, a number of the 5s. 9d. seats, for instance, being paid for at a guinea and a-half. Eight thousand men and women were accommodated in the

[Continued opposite.



MME. GALLI-CURCI AT THE ALBERT HALL.

[Continued.]

Albert Hall—the occasion being one of those rare ones when not a single seat in the vast building is vacant. For a singer whose reputation in this country has been made entirely through the unblemished records of perfect renderings of her songs, the occasion must have been something of an ordeal, as her gramophone records have set the highest possible standard. She began with old Italian arias, and continued with Schumann and the Spanish song "Clavitos," and then offered the polonaise from "Mignon" and the mad scene from "Hamlet." Then, when her last song was over, and the thunders of applause called her back again and again, she sat down at the piano and sang "Home, Sweet Home," to her own accompaniment.

GERMANY'S LAST ZEPPELIN STARTS ON HER TRANSATLANTIC FLIGHT.



WITH AN AEROPLANE ALONGSIDE LOOKING DIMINUTIVE AGAINST HER GREAT BULK: THE "ZR III." IN FLIGHT OVER BASEL—A PHOTOGRAPH FROM ANOTHER AEROPLANE.



THE FIRST CANARY TAKEN ON A TRANSATLANTIC AIR-TRIP: THE "ZR III." MASCOOT, WITH ASSISTANT QUARTERMASTER HANS VON SCHILLER.



THE CULINARY DEPARTMENT OF THE ZEPPELIN BUILT FOR THE UNITED STATES: A STEWARD IN THE WELL-EQUIPPED KITCHEN OF THE "ZR III."



CONSTRUCTOR AND COMMANDER OF THE "AMERICA ZEPPELIN": CAPTAIN ECKENER AT THE WHEEL IN THE NAVIGATING CABIN.



AS IN A RAILWAY CARRIAGE: FOUR OFFICERS OF THE "ZR III." DINING COMFORTABLY WHILE SHE WAS GOING AT 78 M.P.H. AT A HEIGHT OF 1600 FT.

After several trial trips and postponements, the "ZR III," known in Germany as the "America Zeppelin" or "Germany's last Zeppelin," built as reparation for the United States, left her hangar at Friedrichshafen, on Lake Constance, where she was constructed, at about 6.30 a.m. on Sunday, October 12, for her flight across the Atlantic. An attempt had been made to start on the previous morning, but owing to a fall in temperature the airship had then been unable to ascend through the thick mist and clouds hanging low over the lake. Large crowds gathered to watch the airship's departure, but she quickly disappeared in the clouds. Besides her officers and crew, under Captain Eckener, she carried Captain Steel and three American experts. The course taken was over Switzerland and

France and along the north coast of Spain to the Azores. The Zeppelin passed over Basel at 8.15 a.m. at a height of about 1000 ft., and half an hour later was near Belfort. By 5.30 p.m. she had made the Gironde estuary and was flying over the Bay of Biscay; at 9.15 p.m. she was reported off the Spanish coast, all well, and at 4.30 a.m. on October 14 she was reported going steadily west of the Azores, travelling towards Bermuda at 50 miles an hour. She was expected to reach America in about 70 hours, though there had been rumours of a storm brewing in the Gulf of Mexico that might move in her direction. Plans for her reception were made at Lakehurst, New Jersey, where a ground crew of 300 men, provided for the U.S. airship "Shenandoah," awaited her arrival.

THE FIRST ARCHBISHOP OF WALES: A FAMOUS ARTIST'S PORTRAIT.

FROM THE PAINTING BY JOHN ST. HELIER LANDER.



HIS GRACE THE ARCHBISHOP OF WALES—THE MOST REV. ALFRED GEORGE EDWARDS, D.D. :
A PORTRAIT BY JOHN ST. HELIER LANDER, PRESENTED TO HOWELL'S SCHOOL ON OCT. 17.

This fine portrait of the Archbishop of Wales, who is the first holder of that office, is the work of Mr. John St. Helier Lander, the well-known artist who recently painted our notable portrait of the Prince of Wales, and has painted a replica of it for her Majesty the Queen, who visited his studio last week in order to see it. The above picture was painted for the members of Howell's School, Denbigh, for presentation to the school, on October 17. Dr. Edwards, who was appointed Archbishop in 1920, had been for thirty-one years Bishop of St. Asaph, which became the archiepiscopal see. He was born in 1848, the youngest son of the

late Rev. William Edwards, Vicar of Llangollen, and was educated at Jesus College, Oxford. For ten years (1875-85) he was Warden and Headmaster of the College, Llandoverly, and was then for four years Vicar and Rural Dean of Carmarthen. During the same period (1885-9) he was Chaplain and Private Secretary to the Bishop of St. David's. Dr. Edwards has published several works on the history of the Welsh Church, and also a volume entitled "Commonsense Patriotism." He has married three times. His third wife is a daughter of Canon J. R. Armitstead, Vicar of Sandbach.

EGYPT THE CRADLE OF "HEWN STONE":

CHAPELS WITH FLUTED COLUMNS 5000 YEARS OLD

IN the centre of the great cemetery of Memphis at Sakkara stands the oldest of the Pyramids, the step Pyramid of Zoser, the first King of Egypt who, as Manetho says, built a house of hewn stone. The Pyramid is, indeed, the first great conception in masonry which has remained from the ancient world. Its stones, laid like mud bricks in alternate courses of headers and stretchers, show how slowly stone building was in the Third Dynasty emancipating itself from the brickwork tradition. The interior, which has not been examined in recent times, contains the funerary chamber, seventy feet high, roofed with timber, and having a red granite vault built into the floor. One of its chief ornaments, a doorway decorated with green glazed tiles, bearing the name of Zoser, is now in the Museum of Berlin.

The Pyramid is surrounded on all sides by a great enclosure wall, and within this area are the sand-filled quarries from which the stone for the building was taken. The wall consists of a core of rough local stone faced with fine limestone from the quarries on

appearance of Greek work. Indeed, were it not for the similar masonry of the boundary wall and the hieratic graffiti left by visitors as far back as 1750 B.C., it might be a little difficult to disprove the hypothesis of a pious restoration of the Saite age.

Although the clearance of these chapels is as yet incomplete, it is possible to reconstruct their original appearance. Each façade was of two storeys, the cornice of each storey being supported by four fluted engaged columns having capitals formed of a pair of curved leaves (Fig. 3), suggestive of the leaves which spring from and enclose the joints of a reed. These capitals were pierced from back to front with a channel, perhaps a kind of drain to allow rain-water to escape from the terrace or roof. The extreme ends of the façade had a ribbed pattern carved on the stone and originally painted red, as if to imitate the wooden reinforcing at the angles of buildings made of Nile mud.

The side walls of the courtyard before the façade had slender engaged columns with shafts and capitals

discovery and identification of these crescent-shaped flint drill-points was made by Miss Diana Firth, the daughter of the Inspector of Antiquities in charge of the excavations.

By whom and for what purpose were these chapels built? In the complete absence of the usual hieroglyphic inscriptions and reliefs, this is to a large extent a matter of conjecture. There is a shaft and burial chamber associated with each chapel, but only one has as yet been cleared. It was, however, empty, and only some fragments of stone vases of the Third Dynasty, one of which bore the name of an unknown king, were found. From their position it may well be that the two Mastabas (Fig. 1) are the tombs of the Queens of Zoser, and this is supported by the finding of fragments of the gravestones of his daughters, who were very probably buried near their mothers.

Perhaps Imhotep, the famous vezir, magician, and architect of Zoser, is buried near, and to him may be



FIG. 1.—"THE OLDEST STONE BUILDINGS WHICH EXIST IN EGYPT, AND PERHAPS THEREFORE IN THE WORLD": ONE OF THE THIRD DYNASTY CHAPELS (ON THE RIGHT) RECENTLY DISCOVERED AT SAKKARA—SEEN FROM THE TOP OF THE STEP PYRAMID OF ZOSER, "THE FIRST KING OF EGYPT WHO BUILT A HOUSE OF HEWN STONE."

the other side of the Nile. This wall, which in its original state must have been one of the most impressive monuments in Egypt, follows the archaic brickwork pattern of panelled bays, and is built of very finely jointed blocks of small size, very different from the huge stones of the Old Kingdom.

This year the Department of Antiquities of the Egyptian Government began to clear the two mounds (Fig. 1) at the north-east angle of the step Pyramid. They proved to be small Pyramids or stepped Mastabas contemporary with the great building under which they lie. The chapels were found to be on the south side of these Mastabas and not on the east, which was the almost invariable rule in the Old Kingdom. The probable explanation is that there was insufficient room for them between the Mastabas and the great boundary wall already mentioned, and the chapels had perforce to be built facing south. There are other chapels on the north sides of these Mastabas, but they appear to be subsidiary.

These chapels, although terribly ruined, are architecturally of the greatest interest. Each chapel consists of a square courtyard with a façade on the north side built against the rubble core of the Mastaba. This façade, which was probably of two storeys, is decorated with four engaged fluted columns of great refinement (Fig. 4), which give the building the

appearance of the papyrus stem and flower (Fig. 6). In the centre of the façade is a doorway, surmounted by the *khokher* ornament, giving access to a short passage, which turns at right angles and ends in a small room or recess only about a yard square, with niches in the north-east and west walls. This is very clearly the offering place (Fig. 4), and is the predecessor of the false door or stela of the Old Kingdom Mastaba. Above each niche is a small recess or cupboard, which may have contained a portrait head or statue of the owner of the tomb. The offering place is roofed with horizontal slabs of limestone set on edge and rounded beneath to imitate wooden beams (Fig. 4). Another example of this copying of timber construction in stone is found in a chapel on the north side of the Mastaba, where a door swung open has been faithfully reproduced in stone (Fig. 5), even the horizontal wooden braces on the back of the door being represented.

The working of the limestone blocks is of great interest. In order to remove the excess on the surface of the block, a series of holes was drilled close together down to the surface required, and the partitions between the holes were then knocked away, just as a carpenter bores out the waste in a mortise to save work with the chisel. The slight cup-shaped depressions left by the drills have in some cases remained after the final surface dressing was finished. The

due the design of these buildings, which perhaps reproduce the appearance of a palace of the Third Dynasty, possibly of that very first house in stone which tradition ascribed to Zoser.

However that may be, we have here buildings differing in almost every respect from the style of the Fourth Dynasty, which seems to have begun under Sneferu. The architecture of the Third Dynasty is still influenced by the mud brick, clay, and reed construction, and the copying in stone of the plants which had sustained the humble dwellings of Nile mud of the archaic period.

These are the oldest stone buildings which exist in Egypt, and perhaps, therefore, in the world. Although they are so early, it must be admitted that there is nothing tentative or experimental about them. It seems that they mark the end of a short period of considerable architectural knowledge, and that the great change in style in the succeeding dynasty is due to some mechanical discovery which enabled much larger stones to be moved, and thus eliminated a great deal of the waste and labour involved in dressing small blocks. Perhaps this was nothing more nor less than the importation of timber in sufficient quantities to construct the sledges, rafts, and levers necessary for the transport and handling of the great masses which were preferred by the architects of the Old Kingdom.

F. M. C.

THE OLDEST STONE BUILDINGS? "GREEK" TASTE IN ANCIENT EGYPT.



FIG. 2.—"THE OLDEST OF THE PYRAMIDS": THE STEP PYRAMID OF ZOSER (THE FIRST PHARAOH TO BUILD IN STONE) NEAR WHICH THE THIRD DYNASTY CHAPELS WERE FOUND.



FIG. 3.—CARVED IN LEAF DESIGN AND PIERCED WITH CHANNELS, PROBABLY TO DRAIN OFF RAIN-WATER: FLUTED COLUMN CAPITALS FROM ONE OF THE THIRD DYNASTY CHAPELS.



FIG. 4.—DECORATED WITH BEAUTIFUL FLUTED COLUMNS SUGGESTIVE OF GREEK WORK, BUT PROVED TO BE FAR MORE ANCIENT BY EGYPTIAN GRAFFITI (INSCRIPTIONS) MADE BY VISITORS OF 1750 B.C.: THE FAÇADE AND OFFERING-PLACE OF ONE OF THE THIRD DYNASTY CHAPELS DISCOVERED AT SAKKARA.



FIG. 5.—"A DOOR SWUNG OPEN FAITHFULLY REPRODUCED IN STONE": ONE OF SEVERAL CURIOUS EXAMPLES, IN THE SAKKARA CHAPELS, OF THE IMITATION OF TIMBER-WORK IN MASONRY.

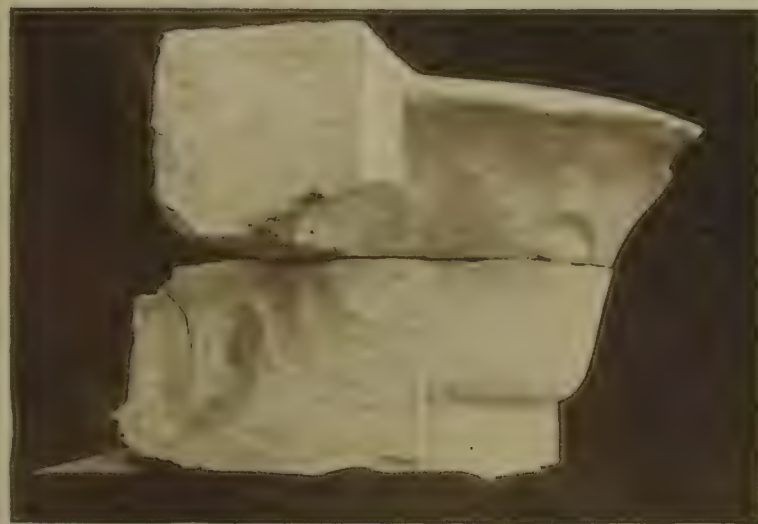


FIG. 6.—"COPIED FROM THE PAPYRUS STEM AND FLOWER": A COLUMN CAPITAL FROM THE SIDE WALL OF A CHAPEL COURTYARD.

The discovery of the two Third Dynasty stone chapels here illustrated is one of the highest interest and importance, since, as the writer of the article on the opposite page says, "these are the oldest stone buildings which exist in Egypt, and perhaps therefore in the world." They were excavated from mounds covering two small subsidiary pyramids or stepped *mastabas*, adjoining and

contemporary with the Step Pyramid of Zoser, "the first King of Egypt who built a house of hewn stone." Zoser's Pyramid is older even than the great Pyramids of Gizeh, which, as Dr. H. R. Hall says in his "Ancient History of the Near East," were built by kings who ruled Egypt "nearly six thousand years ago."



THE PIONEER OF PHYSICS: ROGER BACON 1292.

THE ATOM AND THE NATURE OF THINGS.

II.—THE NATURE OF GASES.

By **SIR WILLIAM BRAGG, K.B.E., D.Sc., F.R.S., M.R.I.**, Fullerton Professor of Chemistry at the Royal Institution, and Director of the Darcy-Faraday Research Laboratory.

This is the second of the series of six articles which Sir William Bragg has written for us, condensing his delightful lectures, "Concerning the Nature of Things," delivered at the Royal Institution. The first article appeared in our issue of Oct. 11, and the others will follow in later numbers.

William Bragg has written for us, condensing his delightful lectures, "Concerning the Nature of Things," delivered at the Royal Institution. The first article appeared in our issue of Oct. 11, and the others will follow in later numbers.

In the first lecture it was shown that the behaviour of the helium atom, which was expelled by the radium atom at the moment of its disintegration, necessitated a new conception of the structure of an atom. The helium atom passes through the hundreds of thousands of atoms of all sorts which it may meet in its brief career. Starting at the rate of 100,000 miles a second, it travels in a straight line, until its energy is used up in the encounters with the atoms it meets. This and other effects

observed in the movement make us believe that each atom is like a minute solar system, in which the sun is replaced by a nucleus charged with positive electricity, surrounded by negatively charged satellites which we call electrons. The positive charge of the atom is invariable: its amount determines the number of electrons which it can attach to itself. A "six-electron" atom, for example, has a nucleus charged with positive electricity equal to six of the standard units of electricity in nature—there is only one standard magnitude. It can attach to itself six electrons, for every electron has one standard unit of the negative electricity which is the antithesis of the positive. The atom as a whole is electrically neutral. The behaviour of the "six-electron" atom is, for all practical purposes, entirely determined by the fact that the nucleus is a "six-electron" nucleus. It is what we call carbon. When the atoms of carbon are arranged in a certain way, they form diamond; a second arrangement gives graphite, and black lead; carbon is the most important constituent of the animal body and of all organic substances, of coal, of fats, oils, petrol, and a vast variety of well-known materials. But, though it plays so great a part, all its properties and uses depend on its possessing a six-electron nucleus. A "seven" or a "nine," or any other number gives totally different properties, and, in fact, makes a new substance. The former is nitrogen, and the latter fluorine.

Atoms are found with almost every number of charges on the nucleus, from the "one-electron"

atom which we call hydrogen, to the "ninety-two" electron, which is called uranium. Every atom has its name: a name generally given by the discoverer as indicating some special property which it possesses; or it may have been discovered so long ago that the origin of the name is obscure. Most of the names are well known and time-honoured, and are not likely to be abandoned. Actually each kind of atom is identified with a certain number, as already explained; so that the number is a perfectly sufficient description. Some of the atoms have not yet been met with; for example, number 43. A few months ago there was great interest in the discovery of number 72: it is generally agreed that it shall be called "hafnium," the name being derived from the old Latin name of Copenhagen, where its existence was proved.

In the first of the figures on the opposite page a set of models is shown (Fig. 1). These are to represent, roughly, a probable feature of the arrangement of the electrons in each of the first twenty atoms. Whether the electrons are in movement or not, and what is the character of any movement they possess, is for the present of no importance. The point that is meant to be illustrated is an undoubted arrangement in groups, to some extent concentric about the

nucleus. Thus the first, hydrogen, has one electron; the second, helium, has two. These electrons are more closely associated with the nucleus than any of the others that are to be added as we go to higher numbers. The nucleus of lithium can attach three electrons to itself. Two of these are closely associated with the nucleus just like those of helium; the third is further away, and is not to be classed with the first two. As we go along the line and add one electron after another—the positive charge on the nucleus growing steadily—the new electrons are to be classed with the third electron of lithium. The two inside members are present in all of them; but an outer shell is being formed. This goes on until the number in the new class is eight. After that a third group appears, which grows until it also has eight members; and after that appears a fourth. We need not go further, because the rules of the further formations are of a similar character, and we wish to avoid the complication of detail.

All these facts are illustrated by the models. For instance, aluminium has a "thirteen-electron" nucleus, and the thirteen electrons which it can attach to itself are so arranged that there are two close to the nucleus, eight in the next group, and three in the next.

The forces exerted by one atom on another, when the two are brought close together, are very complicated in character, and are imperfectly understood. If more were known, the models might be more exactly constructed. No doubt they depend on the way the atoms are presented to each other, just as—to take a simple example—a magnet can be made to attract another magnet according to the way their poles are brought together. We know that atoms do attach themselves to one another, and that the forces are very different for different members and arrangement of electrons, and depend on that arrangement. For example, fluorine, which has two electrons in the first group and seven in the second, has properties very similar to those of chlorine, which has two in the first, eight in the second, and seven in the third. In both cases the outside group, that which presents itself to the outside world, is an arrangement of seven.

A certain number of the atoms have singularly feeble attractions for any other atoms, whether like or unlike themselves. These are numbers 2, 10, 18, 36, 54, 86. They are, we may say, the "unsociable atoms," because they never combine with others, they take very little part in the affairs of the world.

They were, in consequence, overlooked until a few years ago. The late Lord Rayleigh found that, after the oxygen had been removed from a sample of air, and every other known gas which might be contained as a small impurity, the remainder did not, as he



FIG. 8.—SHOWING HOW THE ATOMS OF A GAS ARE SET IN MOTION BY CONTACT WITH VIBRATIONS: A PITH BALL HURLED AWAY ON TOUCHING A VIBRATING FORK.

expected, exactly resemble the pure nitrogen which he prepared in the usual ways. With the help of Ramsay he proved the existence of a new gas in the air, which was the number eighteen shown in our models. The proportion in the atmosphere is quite considerable. The air in the theatre of the Royal Institution weighs about three quarters of a ton: of this about 18 lb. is composed of the new gas. Such a proportion would easily have been discovered long ago if the new element had been willing to enter into combination with any other. The discoverers named the element "argon," the lazy one, because of its unwillingness to associate itself with other atoms. It is rather, however, unsociable than lazy; its physical movements are as quick as those of any other atoms of the same weight.

The discovery of argon was quickly followed by the discovery of others like it. The two-electron, helium, was found in certain minerals; its existence in the sun was already known. Neon (10), the "new" gas; krypton (36), the "hidden" gas; xenon (54), the "stranger," and the radium emanation (86) are all very rare.

All these are gases, which is to be expected. Their atoms are in movement, and are each on their own, there being so little tendency to associate. Only when the temperature is greatly reduced do they liquefy, especially those that are light. They are excellent examples of the nature of a gas; of the state in which movement overcomes attraction. There are many other well-known substances which are usually met with as gases, oxygen, hydrogen, nitrogen, and so on. But in these cases we have examples of molecule building which will be considered more carefully later. In each case atoms have combined in pairs; and the pair forms a contented combination, somewhat unwilling to join up with other atoms, and therefore maintaining an independent existence like argon.

The properties of a gas are readily understood if its nature is borne in mind. It is convenient to take the analogy of a billiard table. For these lectures, Messrs. Burroughs and Watts were kind enough to make a special table of small size and having no pockets. A number of balls moving on the table represent























FIG. 10.—WEIGHING AIR: A VESSEL (ON THE LEFT OF THE SCALES) THAT WEIGHS MORE WHEN FILLED WITH AIR THAN WHEN EXHAUSTED.

Drawings by W. B. Robinson from Material supplied by Sir William Bragg.

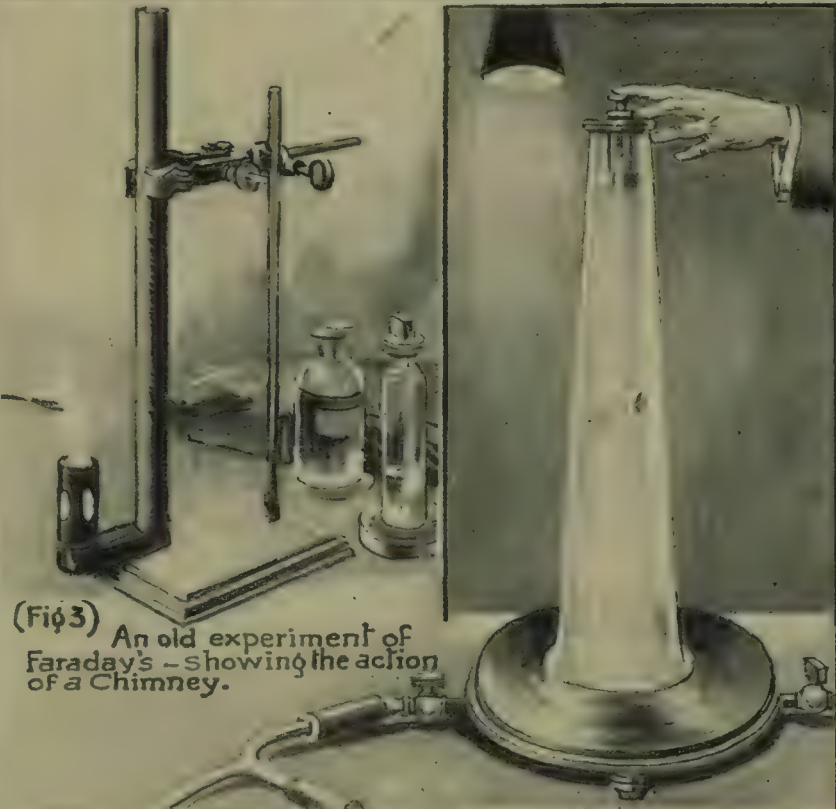
(Continued on page 740)

THE ATOM AND THE NATURE OF THINGS: GASES.

DRAWN BY W. B. ROBINSON FROM MATERIAL SUPPLIED BY SIR WILLIAM BRAGG, K.B.E., D.Sc., F.R.S., IN ILLUSTRATION OF HIS LECTURES.

H. 1	He. 2	Li. 3 (2:1)	Be. 4 (2:2)	B. 5 (2:3)	C. 6 (2:4)	N. 7 (2:5)	O. 8 (2:6)
							
HYDROGEN	HELIUM	LITHIUM	BERYLLIUM	BORON	CARBON	NITROGEN	OXYGEN
F. 9 (2:7)	Ne. 10 (2:8)	Na. 11 (2:8:1)	Mg. 12 (2:8:2)	Al. 13 (2:8:3)	Si. 14 (2:8:4)		
							
FLUORINE	NEON	SODIUM	MAGNESIUM	ALUMINIUM	SILICON		
P. 15 (2:8:5)	S. 16 (2:8:6)	Cl. 17 (2:8:7)	Ar. 18 (2:8:8)	K. 19 (2:8:8:1)	Ca. 20 (2:8:8:2)		
							
PHOSPHORUS	SULPHUR	CHLORINE	ARGON	POTASSIUM	CALCIUM		

(Fig 1) Models of the first twenty Atoms, beginning with Hydrogen which has one electron, and ending with Calcium which has twenty. The models show roughly certain features in the arrangement of the electron.



(Fig 3) An old experiment of Faraday's - showing the action of a Chimney.

The Guinea and the Feather fall at the same rate in a vacuum.



(Fig 5) A dense Fog is formed because moisture settles on the innumerable small particles in the air.



(Fig 2) Just as the strip is bent outwards by the continuous bombardment of the billiard balls, so a balloon is distended by the molecular bombardment of the gas.

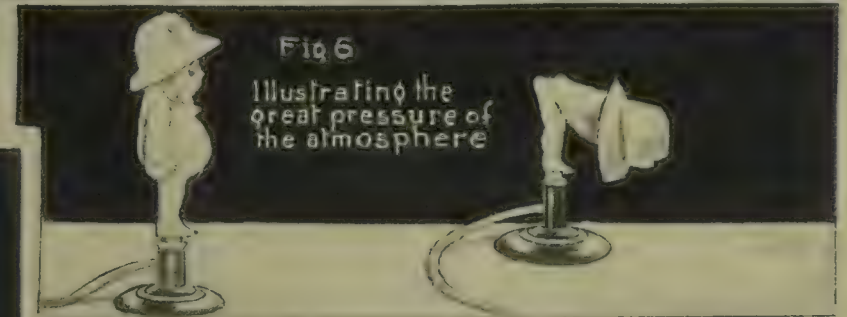
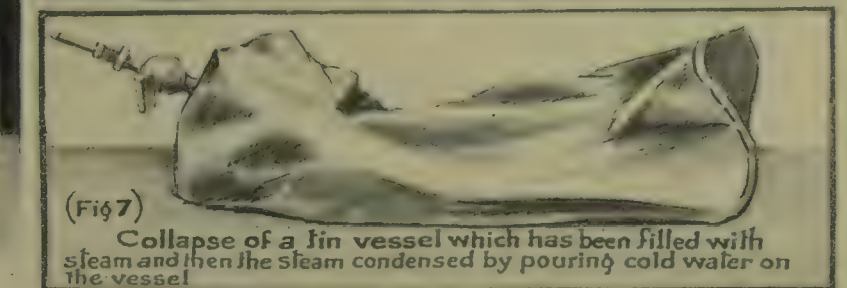


Fig 6 Illustrating the great pressure of the atmosphere



(Fig 7) Collapse of a tin vessel which has been filled with steam and then the steam condensed by pouring cold water on the vessel

II.—“THE NATURE OF GASES”: SIR WILLIAM BRAGG'S EXPERIMENTS IN HIS SECOND LECTURE.

The above diagrams illustrate experiments used by Sir William Bragg in the second of his six fascinating lectures, delivered at the Royal Institution, under the general title, “Concerning the Nature of Things.” His abridgment of this particular lecture, entitled “The Nature of Gases,” written specially for this paper, is given on the opposite page, where the experiments here shown are explained, except those numbered Fig. 4 and Fig. 7. These are sufficiently explained by the lettering on the diagrams. The first lecture of the series, on

“The Atoms of which Things Are Made,” was dealt with in similar form in our issue of October 11, and the remaining four will be given later. Their subjects are: III. The Nature of Liquids; IV. The Nature of Crystals: the Diamond; V. The Nature of Crystals: Ice and Snow; VI. The Nature of Crystals: Metals. Though primarily meant for audiences of young people, Sir William Bragg's clear and simple explanations appeal to all who are interested in science and the hidden mysteries of the physical world.—[Drawing Copyrighted in the United States and Canada.]

THE WORLD OF SCIENCE.

COLORATION: FIXED AND VARIABLE.

By W. P. Pyecraft, F.Z.S., Author of "The Infancy of Animals," "The Courtship of Animals," etc., etc.

THE "systematic Zoologist"—by which term we signify the man who essays the task which fell to Adam of giving names to the beasts of the field and the fowls of the air—bases his work upon the coloration of the creatures which are to be labelled—or, in other words, "ear-marked," in accordance with our concept of what is a species. He does this with confidence, because experience has shown him that, after taking into consideration matters of shape, his final verdict must be determined by coloration. He knows, from experience, that this coloration is constant. True, it may differ with age, sex, or season; but, taking these factors into consideration, he knows that he is justified in regarding all individuals displaying the same coloration as genetically related—that is to say, they are of the same "species."

There is, however, what the psychologists call a "new Universe of Discourse" open to him who ventures to ask: *Why* this constancy? *What* are the factors which determine not merely constancy of coloration, but its source and its particularities? *What* determines the shape of the spots on the thrush's breast? *What* determines the marked differences in the size, shape, and distribution of the spots on the breasts of, say, the song-thrush, the missel-thrush, and the redwing? *Whence* are the pigments derived? And *what* rules their disposition so that each spot shall be of the proper

living, transparent tissue, exhibits a remarkable degree of plasticity. It takes the form of granules enclosed within small capsules known as "chromatophores."

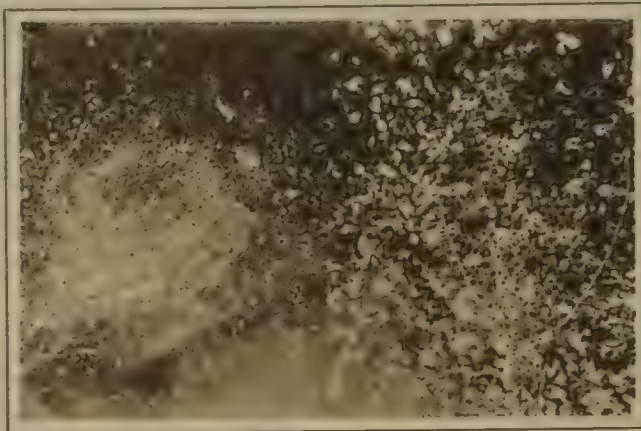


FIG. 1.—THE MOST TELLING EVIDENCE OF PROTECTIVE COLORATION: TURBOT ALMOST INVISIBLE AGAINST A NATURAL BACKGROUND.

"Here we see a species of turbot showing how the coloration adjusts itself to different types of background on which it may be resting in a natural state. The body is almost obliterated."

These granules, under the influence of nervous stimuli, can be made to change their position within the capsules, which are arranged in groups of irregular size, but each group containing its own type of granules. Thus there may be clusters of capsules containing red pigment surrounded by others holding blue, brown, or black pigment, as the case may be, but so as to form a pattern, striped, spotted, or blotched, for example.

Under the stimulus of light, and according to the varying intensity of the light, two or three totally different patterns may be displayed in the same fish within a few minutes, after the fashion of the variety artist on a music-hall stage. Only a few species, however, are thus handsomely endowed. Normally, the process of transformation is less rapid, varying from an hour to a day or two. Not merely the fishes, but also the frog-tribe and the reptiles—

notably the chameleon—share this ability to change their coloration in response to the stimulus of light. Intense light causes the contraction of the dark granules and the spreading out of the lighter-hued.

This rapid and automatic adjustment of the coloration in response to light stimuli plays a vitally important part in the life-history of the creatures thus coloured. And this is nowhere more readily apparent than among what are known as the "flat fishes"—the plaice, turbot, sole, and their like. These furnish, indeed, some of the most telling evidence we have as to the reality of "protective coloration."

Those who have watched such fish in an aquarium will have noticed that after a short excursion in midwater the body comes to rest presently on the bottom of the tank, where it practically vanishes, so closely does it assimilate with the sand or stones on which it is resting. Commonly, however, as if to make assurance doubly sure, by rapid undulatory movements of the body, the sand is thrown up all around it, to settle at once upon the body till the whole is covered, leaving no more than the eyes exposed. Experiment has shown that the coloration is capable of adapting itself with surprising closeness, either to a background of fine sand or of stones of varying colours, some individuals responding more readily than others. In the New York Aquarium, some time ago,

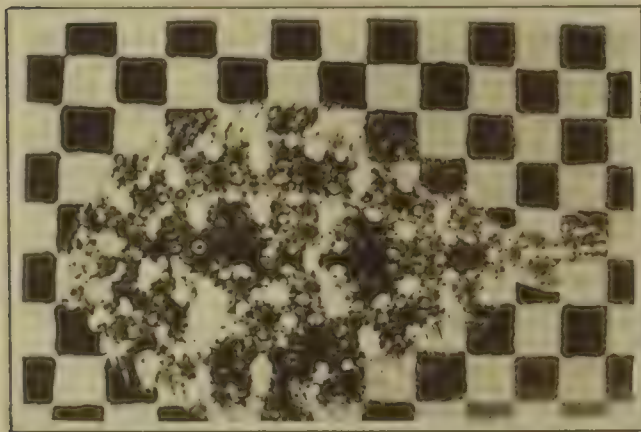


FIG. 2.—SHOWING HOW THE COLORATION RESPONDS WONDERFULLY TO AN UNNATURAL BACKGROUND: THE SAME FISH (AS IN FIG. 1) AGAINST A DRAUGHT-BOARD PATTERN. "The same fish is here seen on a plate of glass coloured like a draught-board. Though utterly unlike any background in nature, yet the coloration responds in a perfectly wonderful way."

hue, size, and shape, and with its proper setting of golden buff?

Answers to these questions, which may be regarded as approximately correct, can be given; but there is behind all a subtle something which evades us; we cannot replace "approximation" by exactness. Nevertheless, we are left with plenty to go on with! Now and again, however, we find cases where something has gone wrong in this matter of coloration, as when we find white blackbirds and peacocks, and black bullfinches or snipe. What causes this absence of pigmentation to which the white coloration is due we cannot say; but we do know that a persistent diet of hemp-seed will cause the bullfinch in captivity to turn black. This explanation will not serve in the case of the snipe, however. All that we can say in this matter of blackness is that species elsewhere pale-coloured incline to blackness where they inhabit persistently humid country.

The coloration of birds and beasts is relatively fixed during certain definite periods, as between moults. And this because the pigments to which it is due are deposited in the tissues of relatively hard structures, such as feathers and fur. Thus embedded, they may suffer bleaching, or the coloration may change owing to abrasion of the surface of the embedding material; or it may change as the effect of the incidence of light, where the surface of the pigmented material is suitably modified, as by pitting, or striations of its surface. The glowing, fiery red of the throat of the humming-bird, or the ever-changing hues in the gorgeous train of the peacock, are due to such surface-sculpturing, backed by a uniformly dark-brown pigment. It is the absence of this pigment which gives us the white peacock.

Fish present a totally different form of coloration, since the skin itself becomes the vehicle for its display. As a consequence, the pigment, now embedded in a

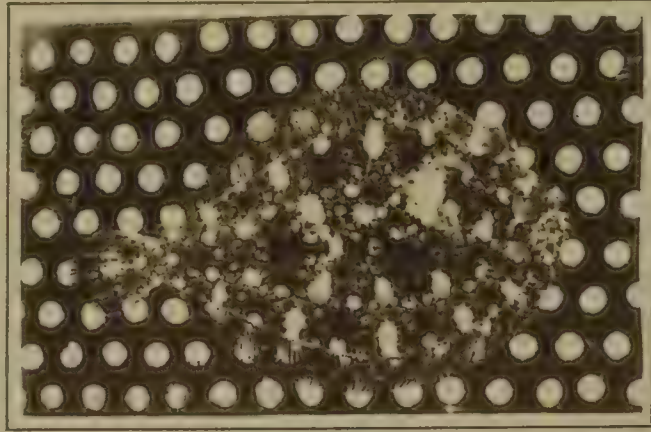


FIG. 3.—THE SAME FISH ADJUSTING ITSELF TO ANOTHER CHANGE OF BACKGROUND: THE TURBOT ON A PATTERN WITH WHITE DISCS.

The same fish (as shown in Figures 1 and 2) is here seen placed on a background in which white discs take the place of squares, with corresponding changes in coloration.



FIG. 4.—AN EXCEPTION TO THE RULE OF WHITE UNDER-SIDES IN FLAT FISH: AN ABNORMALLY COLOURED PLAICE.

"In this abnormally coloured plaice, the under-side, save only the head, is dark coloured instead of pure white. 'Ambicolorate' turbot invariably have malformed heads, but this is not the case with other flat fishes presenting this aberration."

experiments were made upon a species of turbot (Fig. 1), which was made to rest on plates of glass painted like a draught-board (Fig. 2)—a background utterly unlike anything encountered in a state of nature. Yet, as the accompanying photographs (Figs. 2 and 3) show, the coloration adjusted itself to this pattern in a most remarkable manner, though, as was to be expected, the pigment granules were unable to take the form of squares. Their containing capsules were not fashioned to this end.

That these changes are effected by the varying intensity of the light, entering through the eyes, was shown by some ingenious experiments made at the Marine Biological Laboratory at Plymouth, by Mr. J. T. Cunningham. He placed flounders and plaice in tanks with glass bottoms lighted from below, and this caused the under side, normally white, to assume a dark coloration resembling that of the exposed upper surface. Blind fishes, of whatever species, make no response to their external environment, but remain permanently and uniformly of a dark brown.

There are exceptions to every rule. Hence, every now and then, the trawlers bring up flat fishes, of all species, wherein the under side is more or less completely dark coloured. One such example is shown in the accompanying photograph (Fig. 4), wherein the head only retains its normal white colour. This "ambicolorate" condition, when found in the turbot, seems to be associated with a malformation of the head, but this is not the case with other species. In all cases, however, it seems to be associated with a structural difference in the scales. Normally, those on the white side are smaller, and less sculptured. But when the under side is dark coloured, the scales are like those of the upper surface. If there is only a dark-coloured patch on the white surface, then all the scales on that patch will be large and sculptured, like those of the upper side. What is the explanation of this?

"DATED" BY A HISTORIC DISSOLUTION PICTURE: A COMMONS STATUETTE.

THE UPPER PHOTOGRAPH SUPPLIED BY AUGUSTIN RISCHGITZ; THE REST BY THE "TIMES."



NO DOUBT THE EIGHTEENTH-CENTURY ORIGINAL FROM WHICH THE INTERIOR PANELS OF THE SO-CALLED "SEVENTEENTH CENTURY" STATUETTE SHOWN BELOW WERE MODELLED: BENJAMIN WEST'S PICTURE (PAINTED ABOUT 1790) OF CROMWELL DISSOLVING PARLIAMENT AND ORDERING THE REMOVAL OF THE MACE WITH THE WORDS, "TAKE AWAY THAT BAUBLE!"—A SUBJECT NOW OF TOPICAL INTEREST.



WITH COAT "BUTTONED UP": THE IVORY STATUETTE OF CROMWELL PRESENTED TO THE HOUSE OF COMMONS BY MR. WALTER R. REA, M.P.



WITH COAT "UNBUTTONED," AND DISPLAYING INSIDE A CARVED TRIPTYCH, COPIED FROM BENJAMIN WEST'S PICTURE (ABOVE) OF CROMWELL DISSOLVING PARLIAMENT: THE SAME STATUETTE.



SHOWING THE TWO HINGES ON WHICH ONE SIDE OF THE COAT OPENS: THE STATUETTE OF OLIVER CROMWELL IN PROFILE.

An ivory statuette of Charles I., with an interior triptych similar to that shown above, but differing in details, was presented to the House of Commons in 1921 by Major (now Sir Clive) Morrison-Bell, M.P., who recently stated that he bought it in an umbrella shop at Geneva about six years ago. It was illustrated in our issue of May 14, 1921. That of Cromwell here illustrated was presented by Mr. Walter R. Rea, M.P. Under the centre panel of both is a French inscription: "Dissolution du Parlement (sic) par Oliver Cromwell." The triptychs of both show Cromwell dissolving Parliament. The grouping of the figures varies. The triptych here shown resembles closely the picture (reproduced above) painted

by Benjamin West about 1790, and it seems evident that the carving was modelled on the picture, of which engravings circulated on the Continent. This, if correct, disposes of the theory that these statuettes are Italian seventeenth-century work. It has been suggested that they are really German and not more than fifty years old. The House of Commons possesses another of Cromwell containing a triptych of the Battle of Naseby. A statuette recently placed on view at Llandudno represents Mary Queen of Scots, with a triptych of her execution. Another figure of Mary, with a triptych of Rizzio's death, was bought by an American at Meran, Tirol, in 1922. The Cromwell statuette above was at first described as Charles I.

BOOKS OF THE DAY.

By J. D. SYMON.

IT has been remarked by a recent writer on the books read by young people that the girl of to-day fights shy of the older novelists because their women characters seem so remote and out of touch with the interests of modern youth. There is truth in that, admittedly; but if the fiction of the nineteenth century is somewhat at a discount, the nineteenth century itself certainly is not. That great and much-criticised age is claiming a very large share of attention and curiosity; how large a share may be seen from a glance at the current book-lists, where at least three recent titles actually contain the name of the century, while the subject-matter of other works is concerned almost exclusively with Victorianism, viewed either sympathetically, as in one most charming memoir, or censoriously, as in a very remarkable new novel, of which later.

Never perhaps has a century just left behind given so much material for heart-searching and controversy to the age immediately succeeding it as the august nineteenth, which, by the accident of a Sovereign's longevity, has become identified for nearly two-thirds of its span with that Sovereign's name. The interest of the early nineteenth century in the departed eighteenth was something entirely different. When Walter Scott chose as alternative title to "Waverley" the pleasing phrase, "'Tis Sixty Years Since," he was merely assuming the rôle of the teller of good old tales. When he commenced prose romanticist, he turned to the eighteenth century, because it happened to offer the latest experience of high romantic adventure these islands had known. Since the Forty-five there had been no fighting within our borders; the Jacobite cause supplied a picturesque background second to none. The novelist's interest was not critical, but sympathetic, and he made his readers feel that these were times to live in, and that in his own day chivalry, despite the excitements of the Napoleonic wars, was sadly to seek.

Europe might be sufficient field of adventure up to 1815, but thereafter the times had grown a trifle humdrum, and Scottish romanticists, seeking a thrill in real life, were betrayed into the absurd theatricality and tinsel of the Edinburgh welcome to Fum the Fourth. What Scott revived so admirably in "Waverley," he reduced to a rather tawdry circus when he organised a royal pageant, intended to restore for a moment the glamour of the Highland clans. The tartan touch was not altogether germane to the ceremonies of a Lowland city, and its grotesque exaggeration can have arisen only because Scott had been lifted a little above himself by his own splendid dream of Prince Charlie's brief residence at Holyrood. In King George's welcome the early nineteenth century strove with forced hands to bring back the eighteenth, and failed. But if the nineteenth suffered in sense and dignity by the practical experiment, it did not, therefore, turn and rend the foregoing period. In the pages of "Waverley" where Scott achieved the magic he missed in public spectacle, it worshipped "the good old time." To-day the case is reversed; for many writers who concern themselves with the last century regard it as a bad-old time, that ought to be sent with all speed to the lumber-room of the ages.

Despite this adverse opinion, however, they cannot get away from it. The huge fabric of criticism which has gathered about things Victorian is itself a testimony to the importance of that age. One would not for a moment contend that it stands above criticism, from which no mundane thing can be exempt, and the sharpness of the first reaction was inevitable, and healthy. Mere petulant disparagement may be discounted. It was natural to the impatience of a fresh young age, and it is now finding its counterpoise in several quarters, as the Twentieth Century moves out of adolescence into the vigorous young manhood of its own middle 'twenties.

One aspect of the case for men who stand at the meeting-places of the ages has been admirably put by Mr. Hugh I'Anson Fausset, in his "JOHN DONNE: A STUDY IN DISCORD" (Cape; 12s. 6d.). Speaking of pioneer thinkers, he says: "Such men are rebels against the conventions of their times because they are driven to explore the realities of all times. It is not only for their greater sincerity that they are most worthy of study, but also for their wider research. They renew the past in their lives and they image the future. Exulting in the primitive impulses of nature, they doff the garment of contemporary civilisation, and, by ways of bitter experience, re-fashion it to clothe their nakedness. And since life's verities are most luminous when its form is no longer congealed by convention, and its elements are for the moment resolved, the rebel whom passion animates, and who is also self-conscious enough to record and analyse the phases of his experience, is a history in miniature. His errors and distractions, even his failure, is more charged with significance for posterity than all the maxims of complacent conformity." Mr. Fausset finds that John Donne's personal history is not only "a parable of 'Everyman,' and, as such, applicable to any age; but he also represents, more fully than any of his contemporaries, the three aspects of life which met in confused association in the England of the seventeenth century, those of Mediævalism, the

Renaissance, and the Reformation. Sensual, scientific, egotistic, he is alike Pagan, Scholar, Courtier, and Puritan, a child of the old darkness and the new dawn."

Once more, with regard to men who stand significantly at the confluence of periods, take this passage from Mr. J. Middleton Murry's "DISCOVERIES" (Collins; 7s. 6d.), a most original, stimulating, and suggestive volume of literary and ethical criticism, where many diverse themes are wrought into a cunning unity. "During the eighteenth century," says Mr. Murry, "the minds of men appear to have been occupied with the work of liberating the individual from what he felt to be the bondage of tradition. Now, across the distance of a separating century, we can see that the task of asserting the complete independence of man was necessary in order that he should learn by bitter experience that it is not possible for him to live in complete and conscious independence, and that if he could not endure the restraint of a tradition which seemed to him lifeless and untrue, he must dig down into himself for a new one. That was Rousseau's great work. He discovered

power and interest. Some may even find that Joan's evil genius was less her mother than the intellectual woman who urged her to secure the career that seemed to be open to her talents: for in Elizabeth Royden there is a selfishness more subtle even than poor Mrs. Ogden's. Here another passage of Mr. Middleton Murry's might very well apply, and in the light of his words one may discover an exposure of Elizabeth's case. Speaking of one aspect of Russian literature, the author of "Discoveries" says: "When Dostoevsky said that the Russian wanderer needs the happiness of all men to find his own peace he spoke the truth. But the truth is double-edged. We may regard it either as a statement of the deep disinterestedness of the Russian spirit, or of the utter hopelessness of its efforts. A man who depends for his happiness on the happiness of mankind is doomed to misery; he will be all his days a man of sorrows and acquainted with grief."

The trouble with Elizabeth Royden was that her passionate concern for the happiness of her pupil, Joan Ogden, was fundamentally an even more passionate concern for her own happiness. If Joan's mother devoured and frustrated her, Elizabeth devoured her no less, and the result was failure for both their lives. The book may not hold water at all the corners (e.g., Joan's curious approach to medical study), but it is well worth reading, if only for its power of arousing obstinate questionings. Its ironical portraiture is often excellent, particularly the snobbish mother, with her absurd yet pathetic cult of her own family. The British form of ancestor worship has seldom been more neatly handled than it has been by Miss Radclyffe Hall in "THE UNLIT LAMP" (Cassell; 7s. 6d.), in which the characterisation is everywhere more convincingly presented than the problem it propounds.

From the ungracious side of Victorian domesticity it is a happy compensation to turn to another book, where the better part of the very same period finds the most charming portrayal. If "The Unlit Lamp" lacks a necessary foil that would have given the novel greater completeness as a picture of life, and so thrown the darker side into finer relief and confirmed the story as a work of art, this foil comes pleasantly to hand in "A NINETEENTH-CENTURY CHILDHOOD," by Mary MacCarthy (Heinemann; 6s.), a little volume of reminiscences which should be in the hands of every girl who may be allowed to read the novel. I would go so far as to make the reading of the one a condition of reading the other.

For "A Nineteenth-Century Childhood" provides a salutary assurance that Victorian family life was not entirely a thing of hopeless repression of the young, of sordid bickerings and unseemly meanness. Mrs. MacCarthy, more fortunate than Joan Ogden, grew up in the happiest surroundings under the care of parents whose married life seems to have been an idyll. The home of the Kestells at Eton had an atmosphere of distinguished peace that reminds me of the atmosphere suggested by Hallam Tennyson in his Life of his father. Nor is this surprising, for the Kestell circle touched the Tennysonian, and the two families had many friends in common. The family was characteristically Victorian even in its size. The catalogue of names runs to eight. Of some we catch mere glimpses, but even these have a touch of colour. "Upstairs in her room Teresa, aged eighteen, is studying Greek with Mr. William Cory." How delicious are the associations aroused by the tutor's name! "They told me, Heracleitus, they told me you were dead"—that incomparable translation lights up the whole passage, although it is not mentioned in the text. And the record of chance visitors—Mr. Shorthouse, Mr. Oscar Browning—exquisite vignettes.

The book is to some extent a requiem for the era it enshrines, but the sentiment never lapses into sentimentality. From a purely personal point of view Mrs. MacCarthy describes the passing of Queen Victoria, the last stage of whose funeral she and one of her sisters watched from a privileged place at Windsor Castle. Schoolgirl humour will not be repressed even in the notes on that solemnity, and there is a quite new and intimate anecdote of how the Kaiser spread a red carpet for Queen Alexandra. The workmen had been behindhand, and were surprised by the unexpected appearance of Majesty from a postern door. While they stood confused, the Kaiser, with an adroit kick, did their work. On the antagonisms of successive ages Mrs. MacCarthy has also her word. On quintessential Victorianism she can indulge a light moment of irony. "It is the solemn sense of salvation in each generation that makes matter for cynicism," but she takes care to add, "If I have just now appeared to chime in with the devil's yells with a faint yet presumptuous titter, let me hasten to say that it is with full consciousness that this present age of culture, confusing brutality with sincerity, and duped by madmen and charlatans, will be under the lash of the next generation's laughter in no time." She might have added, with equal truth, that a little later still it will also afford a subject of regretfully affectionate retrospect.

Another autobiographic link between two periods will be found in "MEMORIES OF THE TWENTIETH CENTURY," by the Earl of Meath (Murray; 10s. 6d.), an interesting sequel to the same writer's "Memories of the Nineteenth Century." The record is brought down to 1922, and deals with the Empire Day movement and with the author's Empire tours.



FROM "THE ILLUSTRATED LONDON NEWS" OF 82 YEARS AGO: "THE BOCCIUS LIGHT"—A PATENT GAS-LAMP ERECTED IN THE STRAND IN 1842.

Describing the Boccius Light, our issue of October 15, 1842, says: "The invention derives its name from that of the patentee, who signs himself 'Gottlieb Boccius,' and dates himself from Duke-street, in the Adelphi. . . . An experiment has been already made, on an extensive scale, to show its capacity . . . by the erection of a lamp in the Strand, opposite Northumberland House. . . . The light afforded is equal to the concentrated effect of at least 100 (ordinary street) burners. . . . In explanation of the engraving, it may be necessary to state that the gas is supplied from the main, passing through a meter placed at the top of the stone pillar. The weight of the lamp is 112 lbs."

Reproduced from "The Illustrated London News" of October 15, 1842.

that the new tradition was not unlike the old. The reality in both was the same; but in the old it had been hidden, in the new it shone with all the golden light of a personal discovery."

To-day it is not my intention formally to "review" Mr. Fausset's "Donne" or Mr. Middleton Murry's "Discoveries," but merely to direct the reader to these two most valuable books, which incidentally have given me salient passages illustrating this question of the conflict and the harmony between new thought and old. Problems arising from the antagonisms of the Victorian age to the earlier forces of reaction within that period form the central thesis of a noteworthy novel, which, by the way, I have just seen advertised by an ingenious device at a railway station as "the book of the hour." In that device, the "jacket" of the novel, repeated twelve times, took the place of the twelve hours on a huge dial fitted with moving clock-hands. My only excuse for the triviality of mentioning this example of the sweet uses of advertisement lies in the fact that when I saw it the novel, half read, happened to be in my travelling-bag, and had already arrested my attention sufficiently to make my interest in the book independent of any trick of the bookseller.

The novel traces a girl's struggle for freedom in the later years of the nineteenth century, but still early enough for her to be a pioneer, subject to the least intelligent opposition of the home-circle. It is a tale of failure, for Joan Ogden had not the strength to break away from a weak and tyrannous mother, who played upon the daughter's devotion. There are difficulties in the story, which different readers will meet in different ways, but there is no denying its

HOME NEWS OF THE WEEK: OCCASIONS AND PERSONALITIES.

PHOTOGRAPHS BY UNIVERSAL PHOTOGRAPHIC PRESS, TOPICAL, THE "TIMES," L.N.A. VAL L'ESTRANGE, SPORT AND GENERAL, ELLIOTT AND FRY, AND BARRATT.



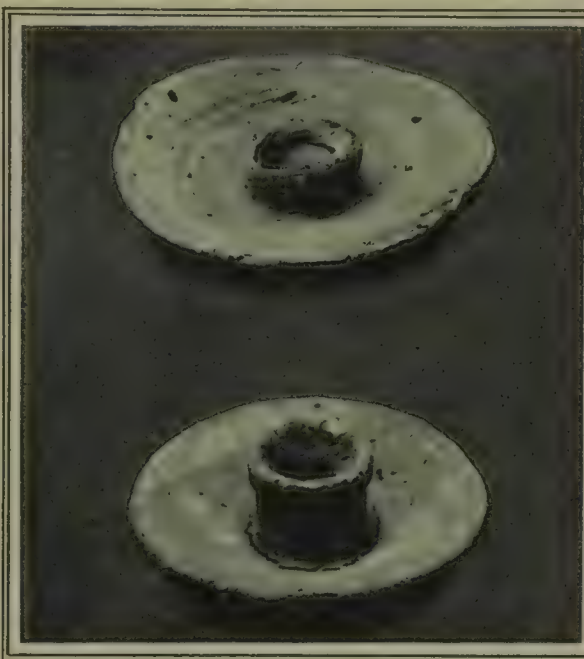
POWERFUL NEW MOTOR-TRACTION FOR THE ARTILLERY: A HATHI TRACTOR HAULING A 9-TON TRAILER AND A 6-INCH HOWITZER THROUGH SOFT SAND AND MORASS AT ALDERSHOT.



A COACHING REVIVAL: THE OLD BERKELEY LEAVING HATCHETT'S HOTEL, PICCADILLY (FORMERLY THE WHITE HORSE CELLARS) FOR BRIGHTON, ON THE FIRST RUN OF ITS NEW WINTER SEASON.



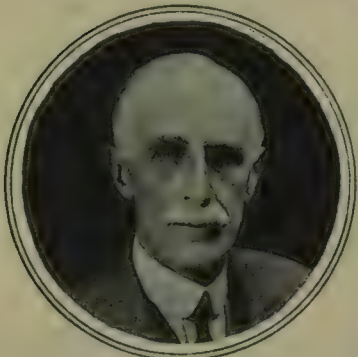
A NEW EGYPTIAN TREASURE FOR THE BRITISH MUSEUM: A BLUE FAIENCE BOWL OF THE SAITE PERIOD (ABOUT 600 B.C.) BEFORE A MIRROR.



DATING FROM ABOUT 3000 B.C.: ANCIENT EGYPTIAN CANDLESTICKS PRESENTED TO THE BRITISH MUSEUM.



DATING FROM ABOUT 2800 B.C.: A STATUETTE (10-IN. HIGH) OF A SUMERIAN WOMAN, ACQUIRED FOR THE BRITISH MUSEUM.



THE NEW CHAIRMAN OF THE SOUTHERN RAILWAY: BRIG.-GEN. THE HON. EVERARD BARING.



WINNER OF THE ENGLISH LADIES' GOLF CHAMPIONSHIP: MISS WETHERED (SEATED, RIGHT), WITH MISS FOWLER (SEATED, LEFT), MRS. CAUTLEY (LEFT), AND LADY CRUISE.



NEW HIGH COMMISSIONER FOR INDIA: MR. A. C. CHATTERJEE.



M.P. FOR EASTBOURNE 14 YEARS: THE LATE MR. R. S. GWYNNE.



NEW GOVERNOR OF TASMANIA: CAPTAIN JAMES O'GRADY.

A demonstration of Army motor vehicles, tractors, and motor-cycles was given recently at Aldershot before Lord Rawlinson (Commander-in-Chief in India) and War Office officials.—The Old Berkeley stage-coach is plying once more between London and Brighton. The first run of the new winter season took place on October 11. The journeys to and from Brighton are made on alternate days.—The British Museum has recently acquired two Fourth Dynasty Egyptian pottery candlesticks (of about 3000 B.C.) from El Kab, the only ones known except those from Tutankhamen's Tomb; an Egyptian blue faience bowl of the Saite period (about 600 B.C.) with relief decoration of beasts, birds and fishes; and a stone statuette of a Sumerian woman from Babylonia (about 2800 B.C.). The candle-

sticks were presented by Mr. J. P. T. Burchell, and the statuette by the National Art Collections Fund.—The Hon. Everard Baring was long connected with the British South Africa (Chartered) Company, and an organiser of railways in Rhodesia and Mashonaland.—Mr. Rupert Gwynne, who sat for Eastbourne, was Financial Secretary to the War Office in the last Conservative Government.—Miss Wethered won the English Ladies' Golf Championship for the fifth successive year, beating Miss Fowler in the final by 8 and 7. In the sixth round she beat Miss Cecil Leitch, and in the semi-final, Lady Cruise.—Mr. A. C. Chatterjee has been Member of the Executive Council in India for the Industries Department.—Captain O'Grady has been a Labour M.P. since 1906.

SEEKING TO ADD TO THE EIGHT: WOMEN CANDIDATES FOR THE NEW PARLIAMENT—CONSERVATIVE, LIBERAL, LABOUR.

PHOTOGRAPHS BY BASSANO, BARRATT, LAFAYETTE, VANDYK, MAULL AND FOX, ELLIOTT

AND FRY, RUSSELL, HAY WRIGHTSON, TOPICAL, HALEY, BACON, AND CUNDY.



MRS. A. CORNER
(LAB.; FARNHAM)



MRS. M. MATTERS-PORTER
(LAB.; HASTINGS)



MRS. MARY MERCER
(LAB.; FAIRFIELD, LIVERPOOL)



MISS M. PALLISTER
(LAB.; BOURNEMOUTH)



MISS KATE SPURRELL
(LAB.; TOTNES)



MISS PICTOU-TURBERVILL
(LAB.; STROUD, GLOS.)



DR. ETHEL BENTHAM
(LAB.; ISLINGTON, EAST)



MISS M. A. HAMILTON
(LAB.; BLACKBURN)



MRS. LOUIE SIMPSON
(LAB.; WEST DORSET)



MRS. CORBETT ASHBY
(LIB.; WATFORD)



VISCOUNTESS ASTOR
(C.; PLYMOUTH, SUTTON)



MRS. HILTON PHILIPSON
(C.; BERWICK-ON-TWEED)



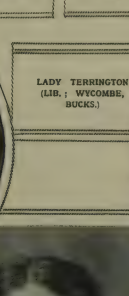
THE DUCHESS OF ATHOLL
(C.; PERTH)



MISS D. JEWSON
(LAB.; NORWICH)



MISS MARGARET BONDFIELD
(LAB.; NORTHAMPTON)



LADY TERRINGTON
(LIB.; WYCOMBE, BUCKS.)



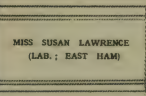
MRS. TOM ELIAS
(LIB.; SOUTHWARK, S.E.)



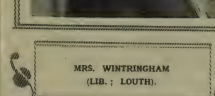
MRS. D. AYRTON GOULD
(LAB.; NORTHWICH, CHESHIRE)



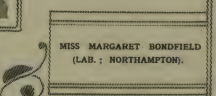
MRS. SUSAN LAWRENCE
(LAB.; EAST HAM)



THE DUCHESS OF ATHOLL
(C.; PERTH)



MRS. WINTRINGHAM
(LIB.; LOUTH)



MISS MARGARET BONDFIELD
(LAB.; NORTHAMPTON)



MRS. TOM ELIAS
(LIB.; SOUTHWARK, S.E.)



MRS. EDNA PENNY
(LAB.; LEEDS, N.E.)



COUNC. E. C. WILKINSON
(LAB.; MIDDLESBROUGH, E.)



THE HON. MRS. BRODRICK
(C.; DENBIGH)



COUNC. J. STEPHEN
(LAB.; PORTSMOUTH, S.)



DAME HELEN GWYNNE-VAUGHAN
(C.; CAMBERWELL, N.)



MRS. HUGH MIDDLETON
(C.; WANSBECK)



MISS E. PILKINGTON
(C.; ST. HELENS, LANCS)



HON. MRS. BERTRAND RUSSELL
(LAB.; CHELSEA)



MISS IRENE WARD
(C.; MORPETH)



MRS. DOLLAN
(LAB.; DUMFRIES)

On the occasion of the last election, thirty-three women stood for Parliament—six of them as Unionists, twelve as Liberals, fourteen as Labour, and one as an Independent. Of these, eight—three Unionists, two Liberals, and three Labour candidates—were elected. The portraits given on this double-page show ladies who, it is understood at the time of writing, are to stand for the new Parliament. It must be noted, however, that it is possible that some may have fallen out before Nomination Day (that is, to-day, Saturday, October 18), and that, on the other hand, additional names may have been brought forward.

certainly this latter will be the case with the Liberals. Needless to say, the three parties are all making strenuous efforts to win the women's votes, and each of the Manifestoes caters specially for the woman voter in a number of features. Labour includes in its programme: "Is it nothing to you . . . that the Bill giving votes for women at twenty-one on the same terms as men should be killed?" The eight women M.P.s in the last Parliament were: Viscountess Astor, Mrs. Hilton Philipson, the Duchess of Atholl, Lady Terrington, Miss Bondfield, Miss Jewson, Miss Lawrence, and Mrs. Wintringham.

THE "STOCK EXCHANGE" OF THE TURF: A "CALL-OVER" TO FIX PRICES FOR AN IMPORTANT RACE.

DRAWN BY OUR SPECIAL ARTIST, STEVEN SPURRIER, R.O.I., BY COURTESY OF THE VICTORIA CLUB.



HOW THE STARTING PRICES FOR A BIG RACE, SUCH AS THE CESAREWITCH OR THE CAMBRIDGESHIRE, ARE ARRIVED AT: "CALLING-OVER THE CARD," AND MAKING BETS THROUGH THE CHAIR, IN THE BILLIARD-ROOM OF THE VICTORIA CLUB.

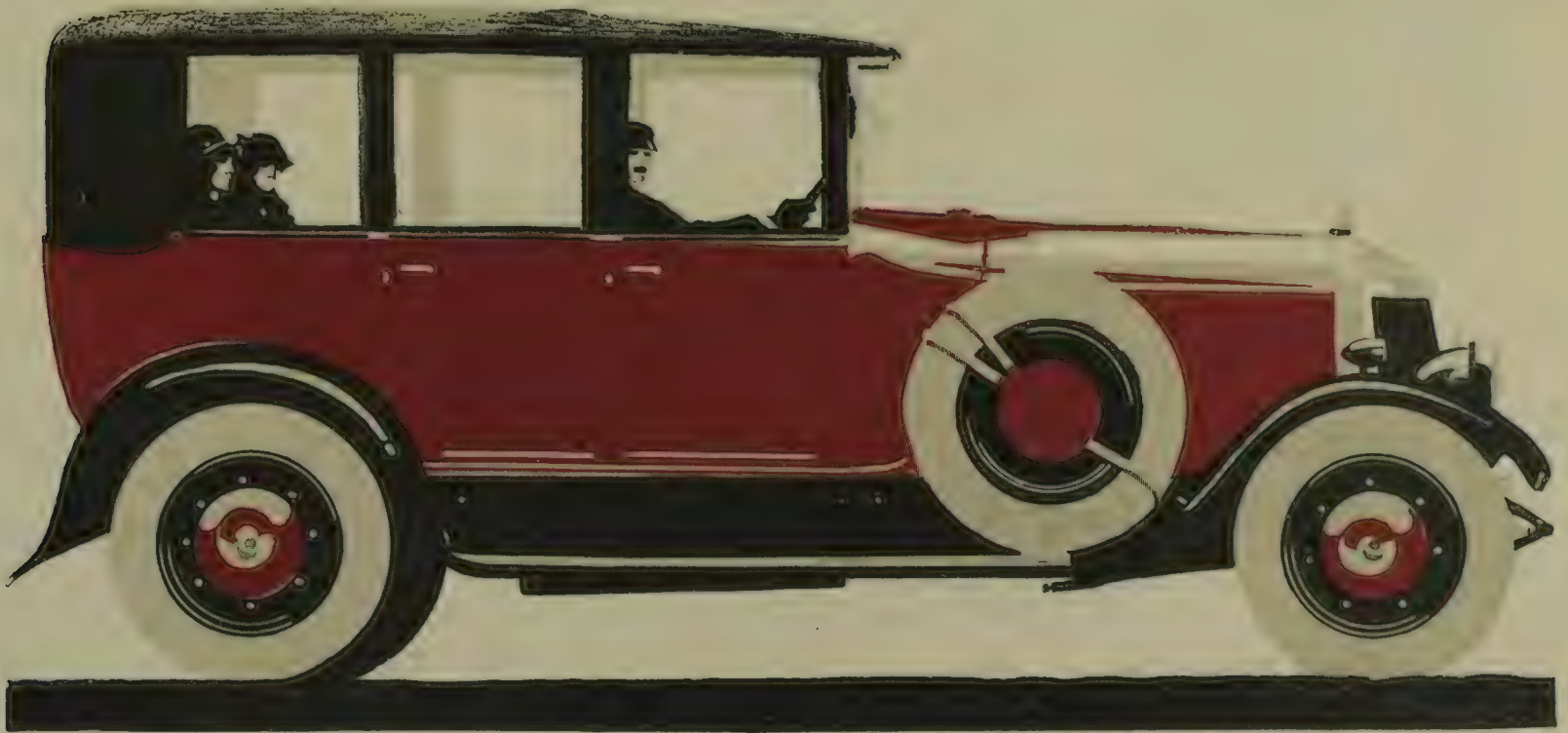
Of all the people who follow the fortunes of the Turf, few probably know how the published prices are arrived at for a big race such as the Cesarewitch, run at Newmarket on October 15, or the Cambridgeshire, which has been postponed from the 29th to the 30th, to avoid clashing with the polling date of the General Election. It is extremely interesting, therefore, to see from this illustration exactly how the prices are arranged, by means of a "call-over" conducted on the lines of an exchange. A writer in the "Daily Mail," describing such an occasion, says: "There are two London betting clubs which call over the card—the Victoria and the Beaufort. In a way, the proceedings resemble an auction. Instead of an auctioneer there is a chairman, and instead of buyers there are bookmakers, agents, and private punters. Usually the favourite is the first horse to be put up. 'Billikins,' the chairman will say. 'What offers,

'Billikins?' And then the business starts. . . . After the leading candidates have been worked off, the rest are tackled in alphabetical order. To simplify matters, all bets are expected to be made through the chair. Were a name called and the company left to wager among themselves the result would be pandemonium. Offers of bets can be withdrawn only by permission. Of course the final price of a candidate becomes his published rate. It may be longer than the opening odds, or *vice versa*. . . . After the last name has been called and the last transaction made, the chairman says, 'Compare your bets,' and the representative of the tape scuttles off to broadcast the prices, which are also returned by representatives of the sporting papers and an official appointed by the club. "Call-overs" for the Cesarewitch took place, at both the clubs mentioned, on October 13.—[Drawing Copyrighted in the United States and Canada]

THE 18TH INTERNATIONAL MOTOR EXHIBITION

1924

Olympia, Oct. 17-25, 1924



Still the Finest Value in Fine Cars

1925 PRICES



**OLYMPIA
STAND
130**

DURING THE SHOW
A COMPLETE RANGE
OF ALL MODELS WILL
BE ON VIEW AT

10 OLD BOND ST.,
LONDON
W.1

FOUR Cylinder 14 h.p.	Chassis	£260
	Open Touring Car or Two-Seater with Dickey	£360
	Special Equipment consisting of 765/105 Tyres, Rear Screen, Bulb Horn, Dash Lamp, Windscreen Wiper, Luggage Straps and Staples	£20
	Saloon, Standard or Weymann	£460
	Saloon Landaulette	£485
	¾ Landaulette	£485
SIX Cylinder 18 h.p.	Chassis	£450
	Open Touring Car (Standard)	£595
	Open Touring Car (De Luxe)	£625
	Saloon, Standard or Weymann	£725
	¾ Landaulette	£775
	Enclosed Limousine or Landaulette	£820
SIX Cylinder 30 h.p.	Front Wheel Brakes	£30
	Chassis	£700
	Open Touring Car (De Luxe)	£950
	Touring Landaulette	£1050
	Limousine or ¾ Landaulette	£1125
	Enclosed Limousine or Landaulette	£1250
Front Wheel Brakes		£35

The equipment includes everything desirable in a first class motor carriage.

Write for Booklet "T" and address of nearest Agent.

ARMSTRONG SIDDELEY MOTORS LTD., COVENTRY
(Allied with Sir W. G. Armstrong Whitworth & Co., Ltd.)
London: 10 Old Bond Street, W.1 Manchester: 35 King Street West
Service Depots in principal centres

ARMSTRONG SIDDELEY

You cannot buy a better car

Before deciding—see the HUMBER 1925 Models at Olympia

WHETHER you are looking for new refinements in mechanical construction or comfort-giving qualities of coachwork and equipment, a visit to the HUMBER Stand at Olympia will prove both interesting and instructive and
a New and Exclusive All-Weather Equipment awaits your inspection.

"It is the most ingenious All-weather device yet introduced."—*The Motor.*

HUMBER may always be depended upon to keep pace with the latest developments of engineering and coachwork design. In the 1925 Models car-comfort and engine-efficiency have been brought to perfection—luxurious travelling indissolubly linked with economical upkeep. "Better value than ever" is the watchword for motorists visiting the HUMBER Exhibit.

If you are unable to see the HUMBER Exhibit at OLYMPIA this year—do the next best thing: write for Illustrated Catalogue.

HUMBER LTD., COVENTRY

LONDON:

CITY SHOWROOMS—32, Holborn Viaduct, E.C.1.

West End Showrooms and Export Branch Office:

Humber House, 94, New Bond Street, W.1.

Service Dépôt: Canterbury Rd., Kilburn, N.W.6.

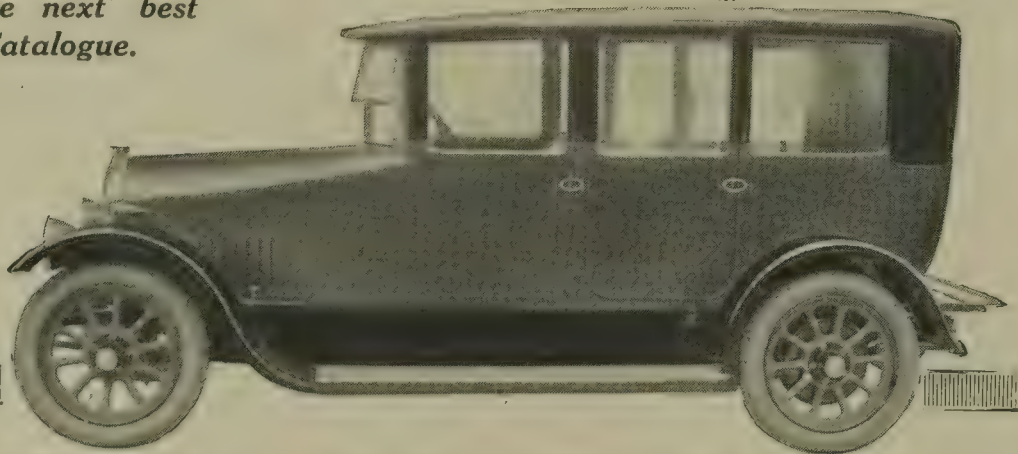


EXHIBIT:

15-40 h.p. Saloon Landaulette	£845
15-40 h.p. Touring Model	- £630
12-25 h.p. Saloon	- £555
12-25 h.p. Touring Model	- £440
8-18 h.p. Saloon	- £290
8-18 h.p. Open Model	- £240

Dunlop Tyres.

Let a British Car reflect your Pride of Ownership.

Lanchester Cars AT OLYMPIA

40-H.P. and 21-H.P. 6-CYLINDER MODELS

FITTED WITH

LANCHESTER PATENT FOUR-WHEEL BRAKES.

OLYMPIA has nothing better to offer you than Lanchester Cars. The main exhibit is a magnificent 40 H.P. 6-cylinder seven-seat Enclosed-Drive Limousine, built as only Lanchester Cars are built and exclusive in its refinements for luxury and comfort. Another complete model on view is a 21 H.P. 6-cylinder six-seat Enclosed-Drive Three-quarter Landaulette, and in addition the 21 H.P. 6-cylinder Chassis is exhibited for the first time. Both models are fitted with the LANCHESTER PATENTED FOUR-WHEEL BRAKES, the SIMPLEST and SAFEST METHOD of Four-wheel Braking yet devised. We shall be pleased to arrange a trial of either model at your convenience. Make a definite note of

STAND 96.



21 h.p. 6-cylinder Lanchester Chassis.

THE LANCHESTER MOTOR CO., LTD.,
Armourer Mills, 95, New Bond Street, 88, Deansgate,
Birmingham. London, W. Manchester.

Travel the Lanchester way in Comfort and Safety.

A NEW ERA—AND A BETTER CAR

MAKING GOOD

MAKING GOOD "in every sense of the word, the 1925 Calthorpe cars are going to reflect to the credit of the Calthorpe name and myself.

Better than ever before, greater value for money—that is the ideal I have set out to reach and maintain. I believe that the value to be found in the 1925 Calthorpe, is a value unsurpassed in British motor car production. Take the opportunity of examining a Calthorpe, study its specification and equipment. Make your own comparisons, and then you will choose a Calthorpe.—G. W. Hands.

12-20 h.p.	15-45 h.p. "SIX."	10-20 h.p.
Two-Seater De Luxe, £315. Four-Seater De Luxe, £325. Four-Seater Saloon, £425. Balloon tyres. Luggage grid. Easting rear screen. Clock. Speedometer. Spring gaiters. Leather upholstery, etc.	Price, complete, £395. Roomy body with four doors. Double windscreen. All-weather fittings. Underslung springs. Front wheel brakes. Balloon tyres on this model optional.	Two-Seater, £235. Four-Seater, £235. Balloon tyres. Double windscreen. All-weather fittings. Leather upholstery. Clock. Speedometer. Horn. Driving mirror. Spring gaiters, etc. Electric lighting and starting.

THE CALTHORPE MOTOR Co., Ltd., Birmingham

Sole Distributors for London, Home and Eastern Counties.
MANN, EGERTON & COMPANY, LTD.

Showrooms: 156, New Bond Street, London, Works: 1a, High Road, Kilburn, N.W., and at Norwich, Bury, Lowestoft and Ipswich.

Calthorpe

CLIMB-IT-ON-A-CALTHORPE

MOTOR SHOW: STAND 86

H.P.



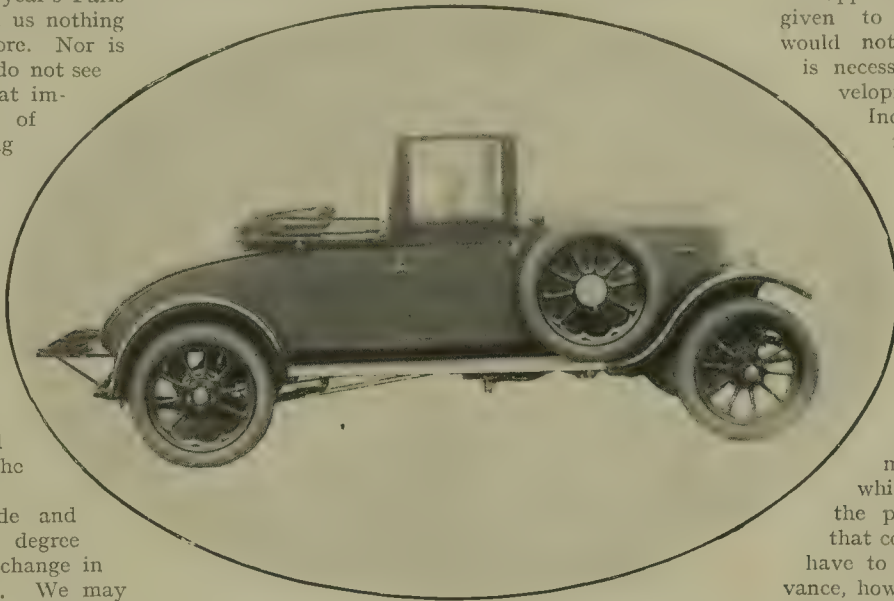
WHAT is to be seen at the Motor Show? I suppose this is a question which is present in the minds of almost every motorist in the country, whether or not he intends to visit Olympia during the week the Show is open. It is not altogether an easy question to answer in any more than very general terms. Of course, one might say that there is everything of car interest to be seen there—which would be literally true. We have the Paris show antedating Olympia, and it is there that we usually first see anything that is new, and are taken into the confidence of manufacturers who really have something novel to offer to the public. This year's Paris show has come and gone and has shown us nothing particularly that we did not know before. Nor is Olympia likely to make us any wiser. I do not see how it can, when we regard the fact that improvement in the car now is a matter of slow evolution rather than of startling innovation. The day of the latter has gone—I would not say for ever, for that would be too bold a prophecy to make. Who knows but that some day or other a genius will arise to discover some new prime mover which will render all our present ideas of car practice obsolete and of no avail? Or, it is not impossible that in the near years to come our cars may be propelled by power broadcast from central stations and picked up by some sort of aerial carried on the car itself.

Until some such discovery is made and applied, however, it is in the highest degree improbable that we shall see any basic change in design or in methods of car-propulsion. We may come to something new in transmission of power, such as the Constantinesco gear or some analogous idea; but even that will not necessarily alter the basis of design. I do not think, however, that we are likely to see even so mild a revolution as this, at least for a very considerable time to come. Our present practice may be theoretically crude in many directions, but there have stood the practical test of time, and nothing has happened to indicate an early reversal of the practice. And so long as this persists it is not to be expected that the Show this year or next, or the year after, for that matter, will contain anything to astonish us. Certainly there is nothing in this present year of grace.

If what I have written holds good, it does not follow, however, that there is nothing to interest. Far from it. There is a steady flow of development which is really of absorbing interest, and many problems are displayed to which the answers are not forthcoming yet. I am afraid that to point the meaning I shall have to enter upon well-worn tracks, but that cannot be helped—it does not require apology. Let us take, in the first instance, the development of the motor itself. It might have been thought that the last word had been said three years ago on the subject of small engines. Then we had a long range of motors in the 10- and 12-h.p. classes which in touring practice were giving us anything up to 22-h.p. on the brake. The same motors, "hotted up" for racing, were capable of giving off more than double that power, and we thought it very wonderful—as, indeed, it was. In the interval much has been done to increase efficiency, thanks mainly to racing, and we have to-day the announcement that the Fiat Company

Some Facts and Reflections.

has put into production a small engine of 902 c.c. of the four-cylinder type, rated at no more than 6-h.p., but which actually has an output of 22-brake-h.p. Now, this is simply development—it is not new invention. The motor in question is absolutely conventional in type and contains no secret—nothing that is not equally known to every good designer. It



A CAPITAL TWO-SEATER: THE 11-22 BAYLISS THOMAS.

is not super-charged, but gets its power through perfect balance and clever design in every detail. I am not certain whether this new motor will be seen at Olympia—I hope it will, for it should be more than a little interesting. In the light of this, how can it be said that the car of to-day represents the last word in design and efficiency?

It would be quite incorrect to say that a similar advance has been made in developing the big engine. It has not, because the racing incentive has not been there. In recent years the Automobile Club of France, which is easily the leader in these matters, has set

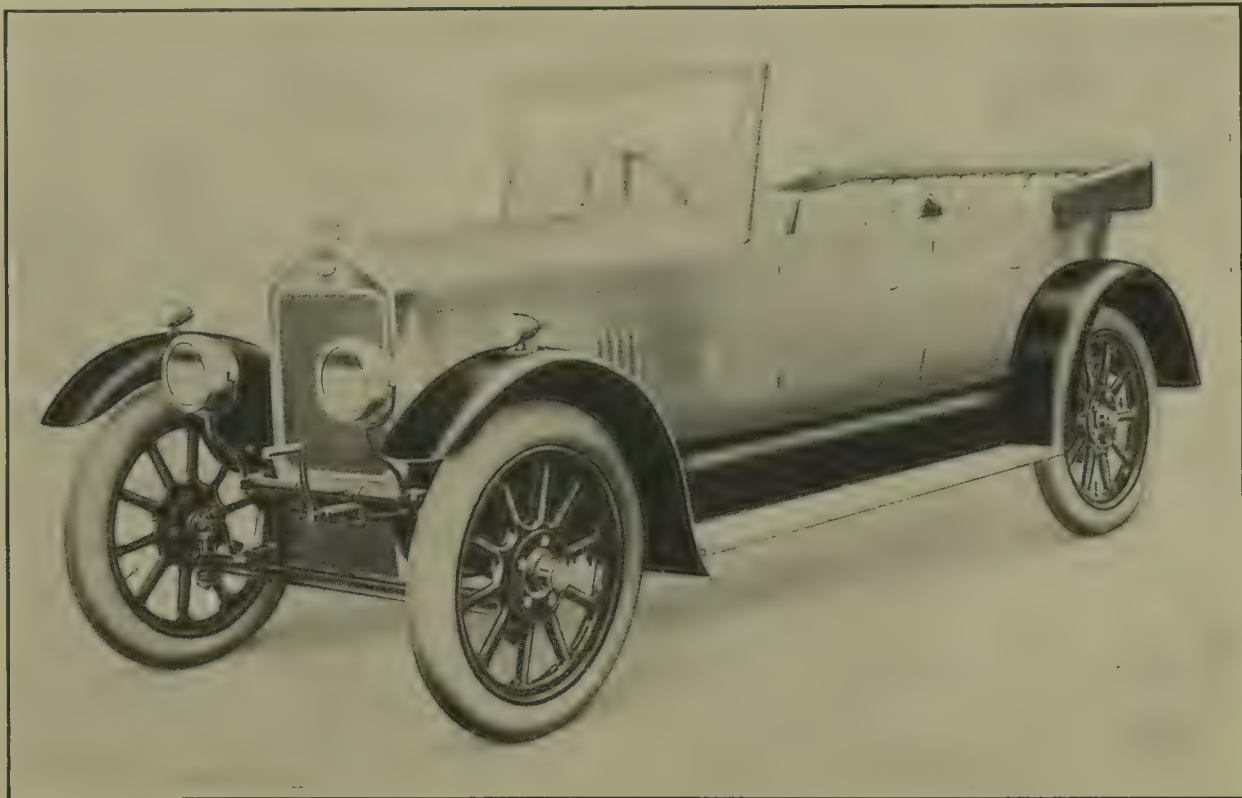
rating. The problem set to designers was, therefore, to get the most out of these dimensions, and the results achieved have been simply astounding. I am told, for example, that the two-litre Bugatti racers have actually attained a speed of 128 miles an hour; which means that, making every allowance for clever chassis design and the reduction of head resistance, these little motors must be giving a power output of over 100-h.p.—probably considerably more. The big five- and four-litre engines of a few years ago have been neglected correspondingly, and remain about where they stood four years back. There is no reason to suppose, however, that if similar attention were given to their development the same results would not be achieved. But I do not think it is necessary or even desirable to pursue the development of big engines to the same extent.

Indeed, I am not sure but that the craze for the small motor has not been badly overdone. I do not think we really want to drive our cars by means of little motors which have an enormous ultimate power output which they only achieve by an extraordinary revolution speed. If we could get a saner taxation policy I believe we should see an immediate revulsion in favour of a comparatively big and "woolly" engine. It is infinitely more comfortable to sit behind.

Last year I said that we had by no means reached the limits of power of which motors were capable. The lessons of the past racing season have fully borne out that contention, and I believe that the same will have to be said a twelvemonth hence. The advance, however, will be in the power output of the bigger types rather than in the small, in which I am inclined to think we have got to somewhere near the ultimate result attainable. Of course, it is highly improbable that anything like the same advance will be made in these bigger motors. For one thing, it is unnecessary, and for another there are technical reasons why you cannot get the same ratio of power output from big dimensions that is possible in the case of small cylinders.

In so far as concerns details other than the motor itself, I cannot discern that much has been done in the year which is past. Methods of production and improved machine tools have given us a chassis in which it is very difficult to see how improvements can be made. So long as we are tied to the conventional

methods of transmission, this will hold good, since in its crude way it simply cannot be made better than it is. We may see some revolutionary change made one of these days, but the time is not yet. There is, of course, one direction in which a good deal of development has taken place. I refer to four-wheel braking, which has now really arrived. There are very few manufacturers now who do not either standardise this method of braking, or who do not list it as an "extra." Very much experimental work has had to be done in order to get the system right, but it has been accomplished, and nobody need be afraid of it. A year ago it was possible to retain very much of an open mind in this direction. Not that the system is the least doubtful



A DISTINCTIVE TOURER: THE 16-35 H.P. WOLSELEY.

from the theoretical point of view. On the contrary, there is no question but that it is absolutely right to apply the retarding effect of the brakes on all four wheels of a car, provided always that you do not introduce certain detrimental factors which

from the theoretical point of view. On the contrary, there is no question but that it is absolutely right to apply the retarding effect of the brakes on all four wheels of a car, provided always that you do not introduce certain detrimental factors which

VAUXHALL MOTOR CARS

for the new season

THE LARGE VAUXHALL

Power 65 h.p. Tax £23. Chassis £725
Wheelbase 10 ft. 9 in. Body space 9 ft. 9 in.

WITH its harmonically balanced engine, the Vauxhall four-wheel braking system, a power development of 65 h.p., and a body space of 9 ft. 9 in., ample for seven-seated closed bodies, the 23-60 Vauxhall at the chassis price of £725 offers in design and value the greatest possible interest to users of large best-class cars. Its functioning is "representative of the very best of road performances for cars of any size or type."

Considered from any point of view, the value given in it is remarkable, justifying the opinion of *Country Life* that it "marks a new note in motor-car values and design." Buy no big car of the best class before you have investigated the merits of the 23-60 Vauxhall.

THE MEDIUM VAUXHALL

Power 40 h.p. Tax £14. Chassis £450
Wheelbase 9 ft. 9 in. Body space 8 ft. 8 in.

THE price of the new Vauxhall 'Princeton' touring car, complete, is £625—but it is a bigger car with a longer wheel base and a wider track. The back seat takes three persons comfortably, the doors are wider, disc wheels are replaced by wire wheels with balloon tyres, and there is a four-speed gear-box.

Much attention has been paid to advancing still further the refinement of the engine. For example, the connecting-rods are balanced by means of bobweights on the big ends. Remarkable results in sweetness of running and steady pulling have been obtained.

In its new form the 14-40 h.p. Vauxhall exemplifies the medium-sized car at its best; beautifully finished, roomy and very comfortable, with unusual power and a performance of great refinement.

THE SPORTING VAUXHALL

Power 112 h.p. Tax £24. Chassis £950

HERE is a car unique, unmatched for its combination of racing-car power with touring-car comfort.

Its enormous power, its marvellous acceleration, its smoothness of running, its striking top-gear performance are each and all unequalled.

The perfection that has been reached in the Vauxhall hundred-miles-an-hour car may be inferred from the fact that it is a matured design, the first of the series having appeared eleven years ago.

In every way the '30-98' is the most remarkable offer in the sporting-car field. The price is lower by £70. 'Velox' four-seater touring car, £1,150; 'Wensum' sporting car, £1,300.

Vauxhall
THE CAR SUPEREXCELLENT

PRICE SUMMARY

23-60 h.p.

'Kington' touring car £925
'Warwick' landaulette £1,225
'Carlton' enclosed limousine £1,300
'Arundel' all-weather £1,175
'Salisbury' limousine £1,250

30-98 h.p.

'Velox' touring car £1,150

14-40 h.p.

'Princeton' touring car £625
'Melton' two-seater £625
'Norfolk' saloon £775
'Wyndham' saloon £775
'Welbeck' all-weather £775
'Grafton' coupe-cabriolet £750

High Quality and High Value Throughout



There are eighteen varieties of Vauxhall body—open, closed and convertible. The illustration shows the 23-60 Vauxhall 'Carlton' enclosed limousine. An example of the best work of the modern coachbuilder, this body is unsurpassed for elegance and quality of finish. It is designed for either owner or chauffeur-driving, having the touring-car steering rake and driving position, and a partition with sliding windows between the two compartments. The seating is for seven persons in all. The two folding seats are of a new design, and they are unusually comfortable and convenient. Price complete. £1,300.

OLYMPIA MOTOR SHOW
OCTOBER
17-25

VAUXHALL MOTORS LIMITED, LUTON, BEDFORDSHIRE
LONDON: 174-182 GREAT PORTLAND STREET, W.1
Telephone: Museum 8216 (3 lines) Telegrams: Carvaux Phone London
Canada: 188 King Street West, Toronto
LONDON AGENTS: SHAW & KILBURN LTD., 20 CONDUIT STREET, W.1

SEE THE VAUXHALLS
AT STAND
No. 140

are worse in practice than the theory is good. That such firms as Rolls-Royce, Fiat, Itala, Napier, to mention only a few leading constructors, did not rush to apply the theory of four-wheel braking to their cars

be agreed that codification is quite necessary, from the motorist's point of view the longer it is deferred the better, within limits, of course. There is still prejudice and hostility abroad and the longer

rest by the Report of a Sub-committee of the Ministry of Transport, which was dead against such a test on every logical and reasonable ground. I do not propose to go over the matter again, because I have dealt with it more than once during the year in the pages of *The Illustrated London News*, and have set forth in full the arguments against such an examination. All I will say at the moment is that it does not seem to occur to those who demand the test that it is not until the potentially reckless, dangerous driver has passed his novitiate and has become a "competent driver" that he shows himself actually a danger. Accidents must always happen. Some will happen as a result of inexperience, but it may be pointed out that no amount of examination in the world will give anybody experience of anything—even of driving a motor-car. That can only come as a consequence of—well, of experience!

In the matter of motor taxation we are exactly where we were a year ago, except that the Committee on Taxation has made its Report to the Ministry of Transport, in which it is laid down that the only practical way of taxing the motor-car is by the method of levying on its horse-power rating! It is true that a minority Report disagrees with this finding; and recommends a reversion to the fuel tax. It is also true that the House of Commons passed a resolution setting forth its considered view that the only just and equitable manner of taxing the car is on its use of the highways, and that

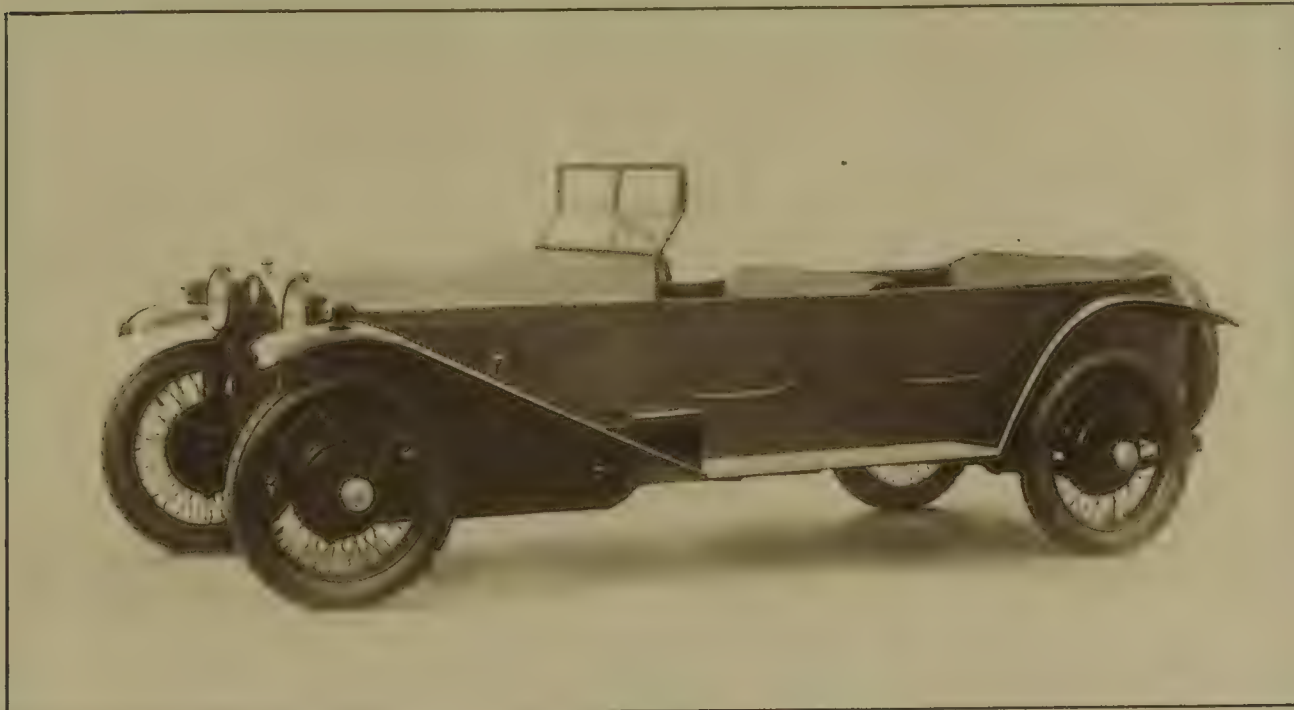
this can be best achieved by a fuel tax. Unfortunately, this is quite in the nature of a pious expression of opinion, and does not get rid of the opposition of the Departments concerned. When the Treasury, the Customs and Excise, and the Ministry of Transport have made up their minds that they will not have the fuel tax, I think we have small hope of securing any change, even though Parliament itself should have expressed its opinion in favour of something else. A recommendation has been made for the reduction of the horse-power tax to fifteen shillings per unit, but whether it is at all likely that the Chancellor will give effect to it in his Budget for the coming financial year remains to be seen. I am afraid that, having tasted the blood of the motoring community, the Treasury will want more rather than less. In any case, it is a fair wager that nothing will come off the motor tax this coming year.

But these are matters which have no direct connection with the Show *qua* Show, so we will now turn our attention to a few of the more important and interesting exhibits.

SOME OF THE EXHIBITS.

Armstrong-Siddeley Five complete Armstrong-Siddeley cars are shown. They (Stand No. 130). consist of a 30-h.p. six-cylinder enclosed limousine, two of the 18-h.p. six-cylinder models—an enclosed landaulette and an open five-seater—and two 14-h.p. four-cylinder cars, one with an open body and the other as a four-five-seated saloon landaulette.

So satisfactorily have the Armstrong-Siddeley chassis behaved in the hands of private owners in widely differing classes of use, that remarkably few variations in the mechanical details have been found either desirable or necessary since they were exhibited last year at Olympia—in fact, since the individual models were originally introduced. In the 30-h.p. six-cylinder model, the only alterations worthy of



CONVERTIBLE INTO A SALOON: THE 14-60-H.P. LANCIA "LAMBDA" TORPEDO.

was sufficient reason that here was a case in which there must be strong arguments on both sides, as, indeed, there are—or were. But experiment has removed all the difficulties, and we find now that even Rolls-Royce, who are the most conservative people in the world when experiments on the users of their cars are concerned, have now adopted the system as standard on their larger model. So far have we progressed in this matter that it is true to say that the car without four-wheel brakes is almost out of date.

Another very strong movement which has taken place during the year is in the use of tyres of large section—the balloon tyre, to wit. It would, I think, be rather a contradiction to say that this is something new, because we have for years realised that most cars are under-tyred. If we had had present-day methods of manufacture ten years ago, we should have had balloon tyres then. It is only the improvements made in machinery for making the comparatively new cord fabric that have given us the low-pressure tyre and real motoring comfort. Another factor which has led up to this development is that it does not seem possible in the light of present knowledge further to improve the suspension of the motor-car. So long as we retain the leaf spring, we shall need some supplementary device to absorb road-shocks, and, as we know that the very best shock-absorber of them all is the air cushion, it almost necessarily follows that we must look to the tyre as the device in question. As in the case of front-wheel brakes, the car which is fitted with the old high-pressure tyres will soon be a back number.

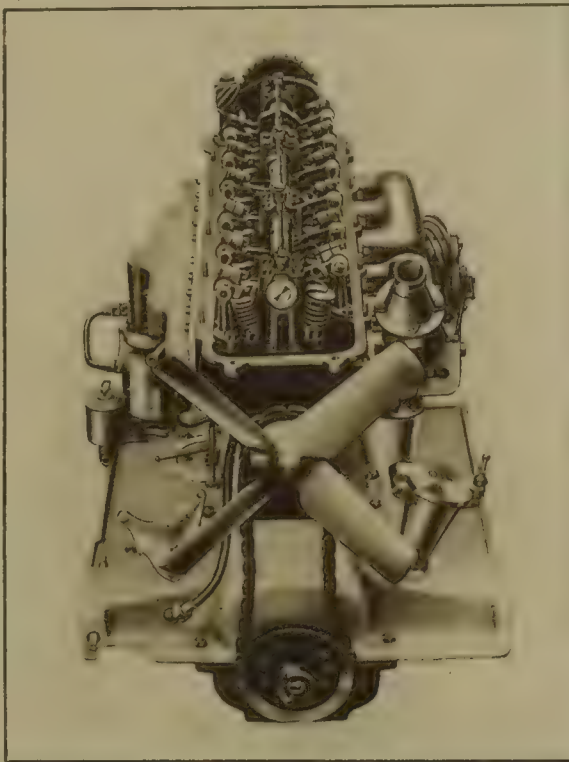
Leaving the mechanical details, I do not think much has been done since last Show to develop in other directions. I thought a year ago that the fabric-covered body would have made much more advance than it has. It is bound to come, because of its many advantages over the older style of coach-built body, but its time is longer in arriving than I had thought. One notable discovery has been made, which will no doubt have its influence on the methods of finishing coach-work. By a new process it has been found possible to coat coach-work with a film of "dope"—it is flowed on—which dries glass-hard, and can be buffed up to take a very high polish. In every respect it has an appearance equal to the best coach-finish; and, as the process takes hours as against weeks in the case of the old-fashioned methods of finishing, it is obviously destined to have a marked influence on the production of bodywork.

There is nothing that can usefully be added at the moment to this brief review of progress since the Show of 1923, in so far as the car itself is concerned. Doubtless there will be many little points that will occur to the observant visitor to Olympia during the coming week, but these are matters of detail rather than of basic importance.

As we reckon our motoring year from Show to Show, I think it is permissible to glance for a moment at other matters which have arisen during the year, and which affect motoring and the motorist. A year ago we were under the impression that 1924 would in all probability see the long-promised Bill for codifying motoring legislation brought before Parliament. Now it seems as far off as ever, and, I think, a good thing too. While it may

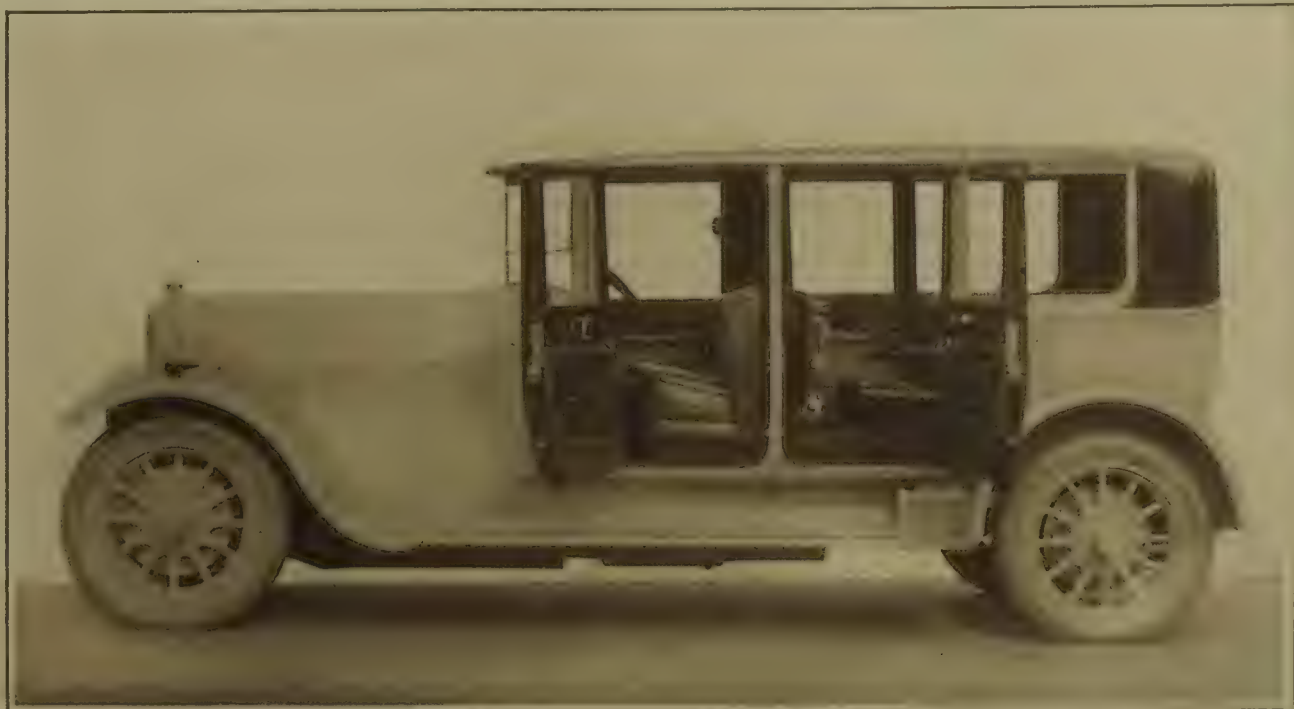
legislation is put off the more likely we are to get a good deal from Parliament.

The good old annual, "tests for motor drivers," has bloomed afresh during the year, and a section



A TOP VIEW, SHOWING VALVES: THE 21-H.P. SIX-CYLINDER LANCHESTER ENGINE.

of the Press has agitated loud and long for the imposition of some sort of examination as to a driver's competency prior to the granting of a license. Most of us had thought that this matter had been set to



THE 30-H.P. SIX-CYLINDER DELAUNAY-BELLEVILLE—WITH ENCLOSED LANDAULETTE BODY BY VINCENT, OF READING.

ROLLS - ROYCE

THE BEST CAR IN THE WORLD

Two 40-50 H.P. Rolls-Royce Cars fitted with the Rolls-Royce Six Brakes System and a 20 H.P. Rolls-Royce Car will be shown from October 17th to October 25th at
OLYMPIA

The price of the 40-50 H.P. Rolls-Royce Chassis, including Six Brakes, is £1,850
(Long Chassis £50 extra)

The price of the 20 H.P. Rolls-Royce Chassis is £1,100

ROLLS - ROYCE LTD.

15 CONDUIT STREET, LONDON, W.1

TELEGRAMS: ROLHEAD, PICCY, LONDON.

TELEPHONE: MAYFAIR 6040 (4 LINES)



"The Perfect Knight"

Willys
KNIGHT

Do not fail to
inspect these
models on the
most unique
Stand at
OLYMPIA
181

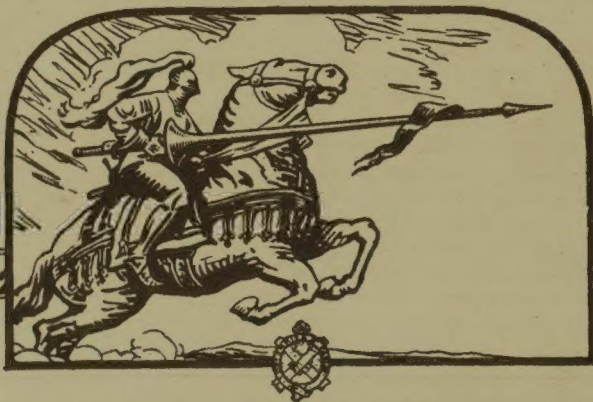
For the first time in history,
we are now able to offer to the
public Willys Knight Cars, fitted
with the famous Silent Knight
Sleeve-valve Engine and LAN-
CHESTER BALANCER, at the
following remarkably low prices:

SALOON (English Coachwork) - -	£595
LANDAULETTE (English Coachwork)	£595
5/6-SEATER TOURER (English Coachwork)	£445
5-SEATER SEDAN (4 Doors) -	£500
5-SEATER TOURER - - -	£385

"THE ENGINE
that IMPROVES
WITH USE"

WILLYS OVERLAND CROSSLEY LTD.

Factory & Sales Dept.: Heaton Chapel, Manchester
London Showrooms: 151/3 Great Portland Street, W.1
London Service Depot: 111 Lots Road, Chelsea, S.W.10



Strength and Endurance

Successes in trials of speed, strength and endurance, prove the sterling qualities of the 15.9 Hotchkiss.

Hotchkiss

NEW PRICES.

15.9 Chassis	£395
Complete with French touring body of high standard . . .	£495
With touring body of best Eng- lish coachwork	£575

FULLY EQUIPPED AND READY FOR THE ROAD.

Sole Concessionaires:

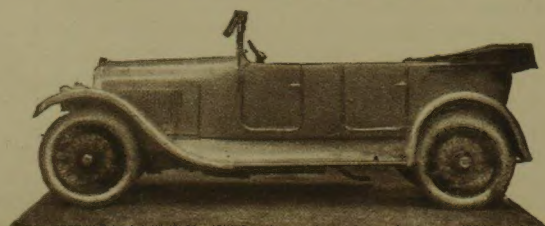
LONDON & PARISIAN MOTOR Co., Ltd
87, Davies Street, London, W.1.

Telegrams: "Corelio, London." Telephone: Mayfair 4224-4225
Works: Newcastle Place, Edgware Road, W.2.

Recent Victories

Seven Awards for Speed
and Two Awards for
appearance have been
gained in one year.

OLYMPIA SHOW
Stand No. 97.



mention are the provision of a gear drive for the engine-starting motor, and a direct drive for the dynamo. Hydraulic shock-absorbers are now fitted as part of the standard equipment, and a thoroughly tested system of four-wheel braking is available, if required by purchasers, at an extra charge of £35.

The notable variations in the 18-h.p. chassis are an increase in the width of the wheel track, which is now 54 in., so affording additional seat-width, and the adoption of a single dry-plate clutch. Four-wheel brakes can also be fitted to this model if required, for £30 extra. The four-cylinder 14-h.p. chassis is unaltered except in quite minor details, though low-pressure tyres are included in the standard specification and prices.

The 30-h.p. six-cylinder enclosed limousine exhibited is an excellent example of the high-grade coachwork invariably associated with Armstrong-Siddeley cars. It is a seven-seated body, the main seats being supplemented by two comfortably upholstered chairs, which fold up neatly into recesses in the back of the front seat. Exceptionally roomy, with four wide doors, and large lights at each side of the rear seat, the body is upholstered in red antique leather at the front and in drab carriage cloth within the rear compartment. A division occurs between the front and rear seating, with sliding windows. The side window glasses are all fitted with an automatic lifting device enabling them to be raised, lowered, or set at any desired height without the use of straps, and without the possibility of window rattle occurring. The interior equipment includes electric corner lights, silk blinds and companions, and the exterior finish is a pleasing tone of purple lake. The price of the car, as shown, with four-wheel brakes, is £1285.

The 18-h.p. open car, seating five adults, is finished in cobalt blue, with upholstery of brown antique leather with a blue ground. The equipment includes a folding rear screen, pockets in all doors, windscreen-wiper, luggage grid, and the special Armstrong-Siddeley all-weather hood. The detachable and

wide appeal as an extremely desirable all-weather and all-purpose car at a remarkably low figure.

The 14-h.p. open car is finished in an attractive shade of green, with leather upholstery to match, one of a range of colours available to purchasers of this model, as to those of all other Armstrong-Siddeley cars. It is to be exhibited with a special equipment differing from the standard in that it comprises such additional fittings as a rear folding screen, two horns, dashboard lamp, screen-wiper, etc. As shown, the price is £380. Without the special equipment it is £360. In both cases there are an all-weather hood and detachable side-panelling, and 29 in. by 4.95 in. balloon tyres.

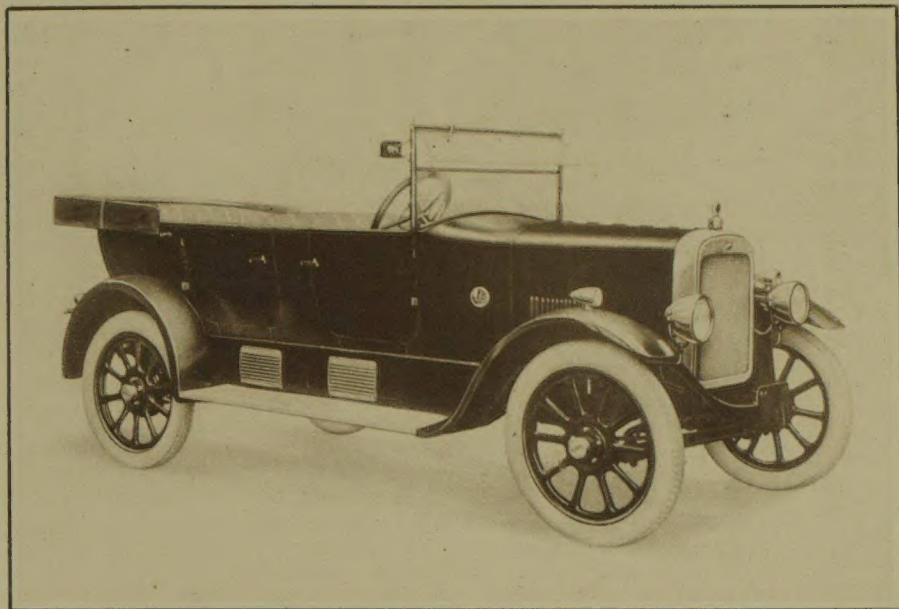
Wolseley Cars (Stand No. 168).

For some years past Wolseley cars have been described as the "Ten," the "Fourteen," etc., under which names they have achieved a lasting fame. But this method of designation, erring on the conservative side, has in many cases led to misconception, and for the ensuing season a different method has been adopted. The three models shown at Olympia are described as the 11-22-h.p., the 16-35-h.p., and the 24-55-h.p., the first figure representing the horse-power on which the tax is payable, and the second figure the brake-horse-power developed on the bench. This form of description is not only more accurate, but also more informative to the car buyer, and it is on these grounds that the change has been made. The 11-22-h.p. model is similar in its main essentials to the Wolseley "Ten," but a number of interesting improvements have been made. Magneto ignition is fitted to all models, the magneto having a positive drive by spiral bevel gears, and arranged in such a position that the

contact breaker is very accessible indeed. The oil-pump has been improved, and is self-priming, a non-return valve being also fitted at the lower end of the suction pipe to maintain the pipe full of oil when the engine is at rest. The exhaust-jacketed induction pipe is fitted with a large inspection door, to facilitate cleaning out the jacket. The accelerator pedal is on the extreme right-hand side.

On the *de luxe* models, the radiator and scuttle have a very smart straight-line effect. The dickey seat on the two-seater is roomy, and will accommodate two passengers in comfort. The four-seater has adjustable front seats, and is fitted with four doors, the two-seater being also provided with a door on either side. The screen is of the sloping type, with adjustable panel. Rigid side-curtains of a new type are fitted, which can remain in position when the hood is lowered. The instrument-board is flat, with flush instruments, and a recessed shelf is fitted for carrying light articles. The battery in the *de luxe* models is carried inside the frame. The equipment provided is a very full one. The prices of the *de luxe* models are, for the two-seater, £325, and for the four-seater £330, but they are listed with

modified specifications at £275 and £285 respectively. In addition to the two- and four-seater bodies, a light saloon is fitted to this model. This is a very smart little carriage of the all-enclosed type, covered in leather-cloth, and is arranged to seat four inside. It is fitted with adjustable front seats, and there are



PRICED AT £270: THE FIVE-SEATER OVERLAND DE LUXE TOURING CAR.

four doors. The price, £375, is a very attractive one. Low-pressure tyres will be optional on all the 11-22-h.p. models.

The 16-35-h.p. model has a bore and stroke of 3 1-8 in. by 5 1-8 in. The cylinders are of the monobloc type, and provided with detachable cylinder head. The cam-shaft driving-chain is provided with an adjustment which, when necessary, can easily be operated without dismantling the engine. The fan is two-bladed, of cast aluminium, and runs on ball bearings. Very efficient brakes of the Duplex pattern are fitted, and a petrol-gauge is incorporated in the tank at the rear.

Five types of body are fitted to this model—namely, two-seater, touring car, light saloon, saloon, and single landaulette. The radiator and scuttle blend with the straight body lines in a manner very pleasing to the eye. The touring car is very roomy, and is fitted with separate sliding front seats, which are also adjustable for angle. The windscreen slopes backward, and has adjustable top panel; and the hood is low, and very smart in outline. The side-curtains are of a new rigid pattern, and can remain in position when the hood is lowered. A recessed shelf and a sliding drawer are fitted in the dashboard, for carrying light articles, and the dashboard and instruments are very neatly arranged. The battery is carried inside the frame, and the tools required for wheel-changing are ingeniously arranged in a very accessible position under the scuttle. The equipment is comprehensive, and includes speedometer, clock, license-holder, screen-wiper, petrol-gauge, dash lamp, etc. At the low price of £435 it will attract many purchasers. Any of the 16-35-h.p. cars can be fitted with front-wheel brakes at an extra charge. Low-pressure tyres will be optional on this model.

The 24-55-h.p. is a six-cylinder model of true luxury type, embodying every modern improvement in motor design. It has a bore and stroke of 3 1-8 in. by 5 1-8 in., and develops a high degree of power, amply sufficient to transport the heaviest carriages



PRICED AT £325: THE 12-20-H.P. CALTHORPE FOUR-SEATER.

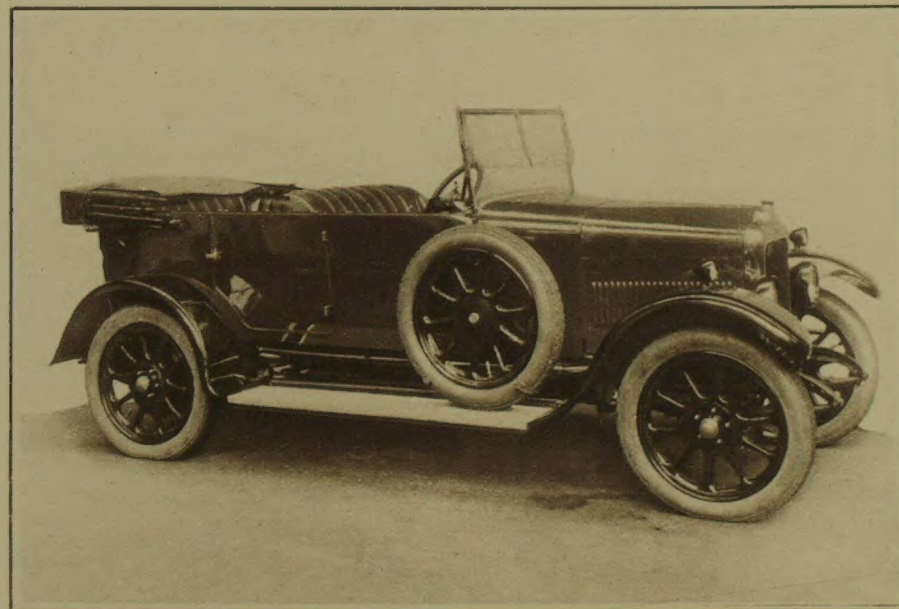
transparent side panelling of the hood being secured inside the top line of the body, a far neater and better appearance is provided than is usual with this type of hood. The side-panels above the doors open with the latter. A commendable feature found on all Armstrong-Siddeley cars is the provision of four doors, the one on the right of the driver being clear of all obstructions to entry or exit.

Another point of note is the three-part driving screen, the two upper sections of which can be adjusted independently to suit the individual requirements of the driver and his companion.

With a clock, speedometer, electric horn, spare wheel and five 815 mm. by 105 mm. Dunlop cord tyres, the price of this car as shown is £625. With the standard equipment the price is £595, and in both cases—especially in view of the high quality of the chassis and bodywork—exceptional value is represented.

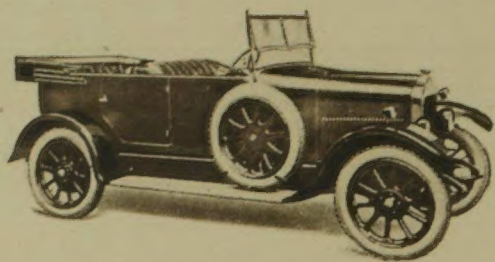
The 18-h.p. six-cylinder enclosed landaulette resembles the 30-h.p. enclosed limousine in many respects, though it differs materially in having the rear part of the head constructed to fold back. There is the same type of partition behind the front seat, and all six windows are adjustable. In this case, the two alongside the driving-seat are sliding windows; the other four have automatic lifting devices. Two auxiliary seats are provided, and arm-rests for the rear passengers. The finish is in dark-blue, with blue antique leather in front and drab carriage cloth in the rear compartment. The price of the complete car is £820, with an extremely generous equipment of accessories.

The saloon landaulette on the four-cylinder 14-h.p. chassis is five-seated. The door windows slide; the rear windows have an automatic lifting device. The interior is a single compartment upholstered throughout in grey carriage cloth. Priced at £485, complete with clock, speedometer, interior companions, and numerous other fittings and accessories, it is a model which cannot fail to make a very



PRICED AT £400: THE NEW 12-24-H.P. CALCOTT FOUR-SEATER.

over the most difficult roads with ease and speed. The pistons are of special aluminium alloy, carefully balanced in sets. The cylinders are of the monobloc type, with detachable cylinder head, which gives a very rigid and vibrationless engine. The carburettor is of the Zenith type. The dynamo is driven by silent



LEADERSHIP

The prestige that has been won by leadership is maintained and, shall we say, enhanced by the introduction of a new Calcott—the 12-24 h.p. It is a car eminently designed for those who respond to excellence. All who have seen this car admit that it has a marked smoothness in action, a flow of power and riding comfort that only comes from a well-

bred car displaying in its conduct the heritage of a long line of ancestors. A remarkably fine car moderately priced. No mass production effort, but a car designed right and built with the care of a craftsman. A car with qualities that preserve leadership—a car just a little ahead of its time. Three-seater, £365. Four-seater, £375. Saloon, £525.

The new 10-15 Calcott for 1925 has been re-designed, enlarged, and improved to such an extent as to immediately place it above the average "light car" class. In power, roominess, comfort, and completeness of equipment it is equal to many cars of higher rating and cost. *De Luxe Two-Seater Semi-Coupe*, £275. *De Luxe Four-Seater*, £275. *Popular Two-Seater*, £255. *Dunlop Balloon Tyres* standard to all models. STAND NO. 91, MOTOR SHOW, OLYMPIA. Catalogues from CALCOTT BROS., LTD., COVENTRY.

CALCOTT

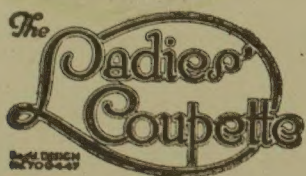
Established 1886

H.P.

Designed & Built for a Lady

Normally the Ladies' Coupette is a delightful miniature 2-seater Coupé—but there is room behind the adjustable front seats to accommodate big hat-boxes and lots of parcels.

Should you, however, wish to give friends a lift, then two cunningly concealed and beautifully upholstered seats fall down from the back panel and make it a complete 4-seater Saloon.



The seductive colour scheme will intrigue you, not to mention clever little gadgets, including concealed mirrors and even a make-up box.

The Body can be fitted to almost any chassis, but it is particularly suitable for the 11 h.p. and 14 h.p. Standard—the "Essex"—the 12.30 h.p. Sunbeam and similar chassis.

Body only, from
£175

Send for fully illustrated descriptive folder.

The PYTCHLEY AUTOCAR Co., Ltd.
203, Ct. Portland St., London, W1

Telegrams: "Pythocars," London.
Telephones: Langham 1464 & 1472;
and at Sheep Street, Northampton.



Woodwright.

PACKARD

At Olympia
Stand 14

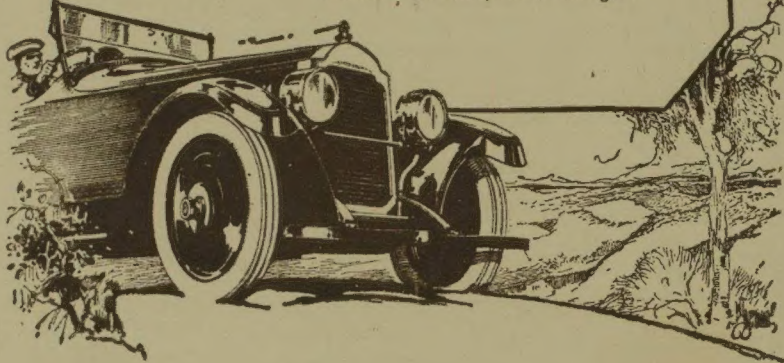
THE real underlying reason for Packard's extreme precision of manufacture is that twenty-four years of experience have proved this to be essential to that satisfaction which every owner seeks.

This constant thought of Packard owners has built a universal reputation.

Sole Concessionnaires

W. C. GAUNT COMPANY
198, Piccadilly, London, W. 1

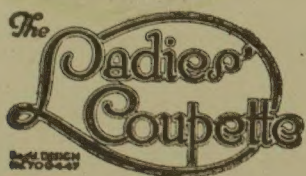
LÉONARD WILLIAMS, General Manager.



Designed & Built for a Lady

Normally the Ladies' Coupette is a delightful miniature 2-seater Coupé—but there is room behind the adjustable front seats to accommodate big hat-boxes and lots of parcels.

Should you, however, wish to give friends a lift, then two cunningly concealed and beautifully upholstered seats fall down from the back panel and make it a complete 4-seater Saloon.



The seductive colour scheme will intrigue you, not to mention clever little gadgets, including concealed mirrors and even a make-up box.

The Body can be fitted to almost any chassis, but it is particularly suitable for the 11 h.p. and 14 h.p. Standard—the "Essex"—the 12.30 h.p. Sunbeam and similar chassis.

Body only, from
£175

Send for fully illustrated descriptive folder.

The PYTCHLEY AUTOCAR Co., Ltd.
203, Ct. Portland St., London, W1

Telegrams: "Pythocars," London.
Telephones: Langham 1464 & 1472;
and at Sheep Street, Northampton.



Woodwright.



The CAR of DISTINCTION

The charm of the Minerva sleeve valve engine lies not only in its smooth power and silence, but in the fact that it actually improves with extended use. With chassis and bodywork in keeping with so perfect a power unit, the Minerva can justly claim a place in the front rank of the world's cars.

CHASSIS WITH TYRES:—

15 H.P. 4-cyl.	16 H.P. 4-cyl.	20 H.P. 6-cyl.	30 H.P. 6-cyl.
£395	£440	£650	£800

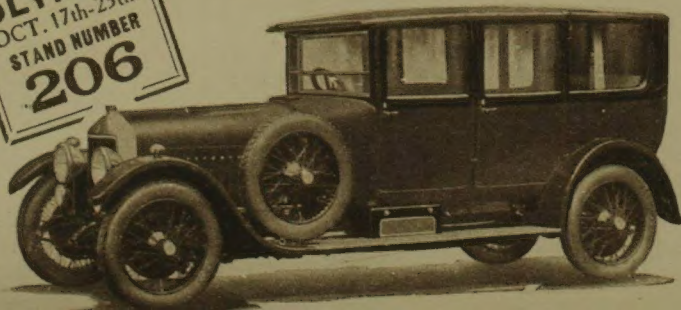
16, 20 & 30 H.P. models are fitted with four-wheel brakes.

COMPLETE CARS:

Landaulettes.	Saloon.	Enclosed Landaulettes or Limousines.
£745	£740	£1,100 £1,250

Showrooms and Offices: *Spare Parts and Repairs:*
MINERVA MOTORS LTD.
Minerva House, Chenies Street, London, W.C. 1
Phone: Museum 40/41
Wires: "Citraconic, London."

MOTOR SHOW
OLYMPIA
OCT. 17th-25th.
STAND NUMBER
206



chain, provision being made for adjustment. The starting motor is of ample capacity to turn the engine on the coldest morning. Front-wheel brakes are fitted, the well-known Perrot type being employed. The chassis frame is strengthened in front to take the lead imposed by these brakes, and the springs are strengthened up for the same purpose. Houdaille shock-absorbers are fitted to the front axle.

Crossley (Stand No. 99). This year's Crossley exhibit again comprises three types of cars, the 14-h.p., the 19.6-h.p., and the 20-70-h.p., the last being the sports member of the family.

The 14-h.p. model has attracted a great deal of attention during the past season, and the large number to be seen on the road is evidence of its popularity. It is a car with ample power, and in this connection it should be noted that the Treasury rating of the engine is 15.6-h.p. The bodies fitted are roomy and well finished, the designer having the question of comfort well in mind. Then the price asked is but little more than that of many light cars, which are, of necessity, quite unable to give anything like the same comfort and service. Briefly, the size, power, road performance, and economical features of the 14-h.p. Crossley meet the requirements of that large and increasing body of motorists who want a sound, reputable and efficient car without paying an extravagant price.

The 19.6-h.p. Crossley has always enjoyed a fine reputation, and it will be remembered that one of these models broke all R.A.C. Certified Trial Car Mileage Records in 1923, when it completed 25,000 miles under R.A.C. observation. This model has again enjoyed a very successful year, making many new friends. Four-wheel brakes (Perrot system) are now fitted, as an extra.

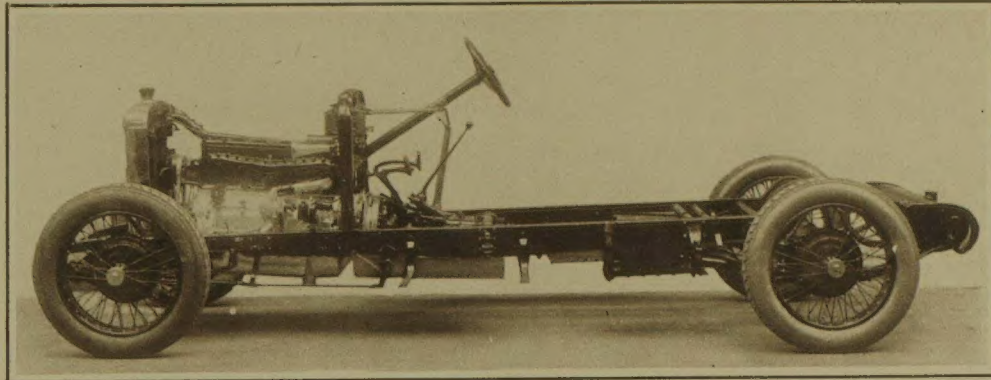
The 20-70-h.p. car is sold with a guaranteed speed of 75 m.p.h., but it has more than speed to recommend it. It has wonderful acceleration, is perfectly docile to handle and control, and is minus the fuss and noise usually associated with sports models. Four-wheel brakes (Perrot system) are fitted as an extra. A 20-70-h.p. Crossley won the 90 m.p.h. short handicap at the Brooklands Meeting on July 5 last, the average speed for the distance being 79½ m.p.h., and the speed for the second lap being 88 m.p.h.

Dunlop (Stand No. 500). Interesting as the Dunlop Rubber Company's exhibit always is, there is an added interest this year on account of the keen desire of almost all motorists to see the pioneer tyre company's balloon tyre equipment. The technicians of the Dunlop Company, in their energetic researches to discover the best type of balloon equipment, have rendered inestimable service to the motoring community. The Dunlop wired-on balloon tyre is now offered to the motorist as a *proved* product—the outcome of strenuous and exhaustive tests both in the company's laboratories and on the road. It is claimed to be the safest type of balloon tyre, and a demonstration will convince any motorist of the security of the method of rim attachment adopted. It may be said with certainty that the advantages which follow the fitment of balloon tyres—increased comfort and better protection for the mechanism of the vehicle—are

obtained to a maximum degree from Dunlop balloons. Representative sizes are shown; whilst there are also Dunlop balloons designed to displace 26 by 3, 710 by 90, 815 by 105, and 30 by 3½ beaded edge normal tyres, without any alteration to existing rims.

To owners of Fords, Chevrolets, Swifts, Vulcans, and other cars fitting the last-named size as standard equipment, the Dunlop 31 by 4.40 balloon will particularly appeal.

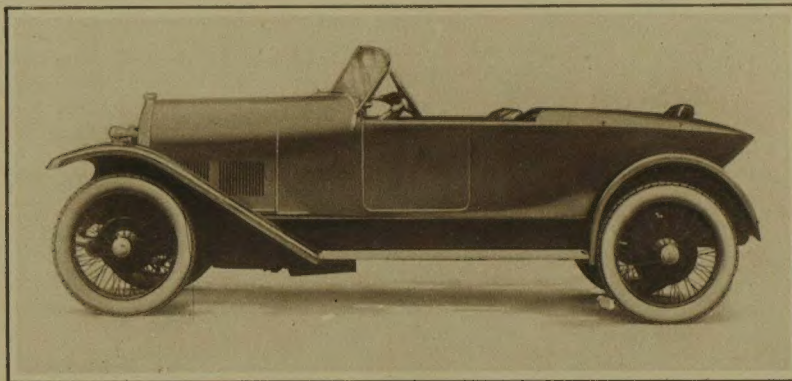
Dunlop cord tyres of the normal type are, of course, on view—in both beaded edge and straight side types. They are shown fitted to Dunlop wheels, of disc, bolt-detachable wire, detachable wire, and steel-spoked artillery patterns. Not a



FITTED WITH SINGLE POINT ADJUSTMENT FOUR-WHEEL BRAKES: THE CHASSIS OF THE 35, 25, AND 20-H.P. DAIMLERS.

few Olympia visitors will be surprised at the very complete range of Dunlop wheels exhibited. One naturally hears less of Dunlop wheels than of Dunlop tyres, but it is doubtful whether there is a finer or more up-to-date wheel-works in Europe than the Dunlop Company's plant at Foleshill, Coventry.

There is, of course, a complete range of Dunlop tyre accessories, and this includes jacks, pumps, repair outfits, pressure-gauges—and, indeed, every type of motor tyre accessory. A new Dunlop jack which has been specially designed for use in connection



£495: THE 12-32-H.P. DARRACQ, TYPE D.C. SPORTS "CLOVER LEAF."

with cars fitted with balloon tyres will attract a good deal of attention.

Fiat (Stand No. 129). Fiats this year are showing three models, the 40-h.p. six-cylinder, the 15-20-h.p. four-cylinder, and the popular Model 501, otherwise the 10-15-h.p. type. The first of these is a very notable car indeed, remarkably clean in design, and unexceptionable in construction. It is, of course, not the model which appeals most to the popular taste, but to that comparatively restricted class which requires a high-grade car, with plenty of power and great body capacity more or less without regard to price. To say that it is a Fiat is enough to denote

that it fulfils its objects admirably. The 15-20-h.p. car has been greatly improved, as I know from actual comparative tests against the old model. It is much faster, a better hill-climber, and gives better all-round performance than its predecessor. Of course, the greatest interest still centres about that really wonderful little car, the 10-15. It seems to be exactly as it was a year ago, the Fiat works policy apparently being to leave very well alone. At its reduced price of £235 for the chassis, it ought to be one of the most popular cars of the day.

Vauxhall (Stand No. 140).

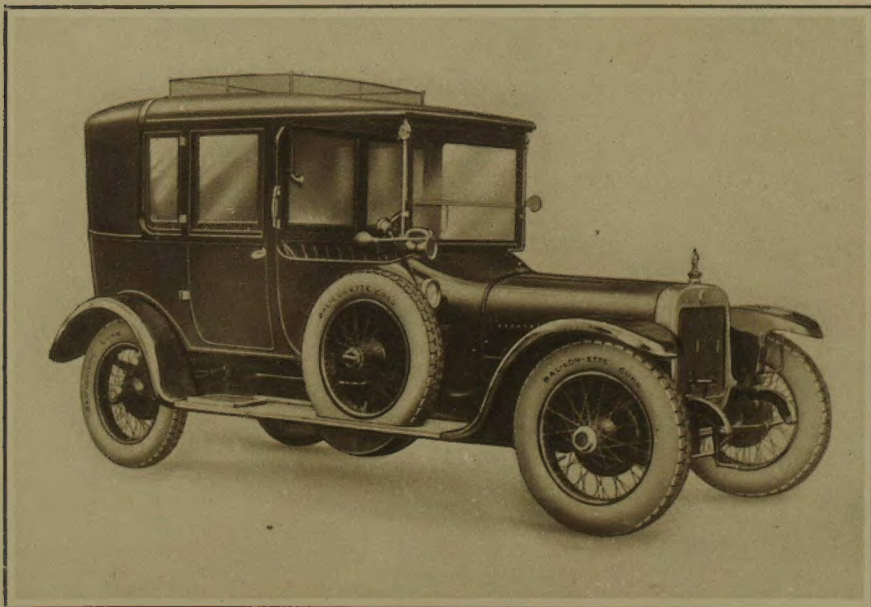
The Vauxhall exhibit is always a centre of interest at the Show, and this year it does not fall a whit behind the usual. The company's programme remains unaltered, in that no new models have been introduced. These remain at three—viz., the "Fourteen," the 23-60-h.p., and the famous "Thirty-ninety-eight." Considerable detail improvements have been made in all three models, all directed towards an increase in the already high efficiency figures associated with the Vauxhall. In the case of the two larger models, four-wheel braking has been adopted as standard practice. The brakes on the front wheels are cable-operated, and an exceedingly clever compensating and adjusting device has been incorporated. The exhibit includes five cars.

There is a 23-60-h.p. touring car, the "Kington," which is worth seeing. The bodywork has been considerably improved, more room being afforded in the rear seats, while the doors have been widened. The front seats are adjustable. With complete equipment this car sells at £925. There is also a 23-60-h.p. "Carlton" enclosed limousine, handsomely finished in dark blue, with brown leather upholstery. Two 14-40-h.p. cars are shown, these being a five-seated touring car, in which again the seating accommodation has been improved, and a four-door saloon. The exhibit is completed by a 30-98-h.p. sporting car—probably the fastest four-cylinder touring car in the world. It is a notable exhibit.

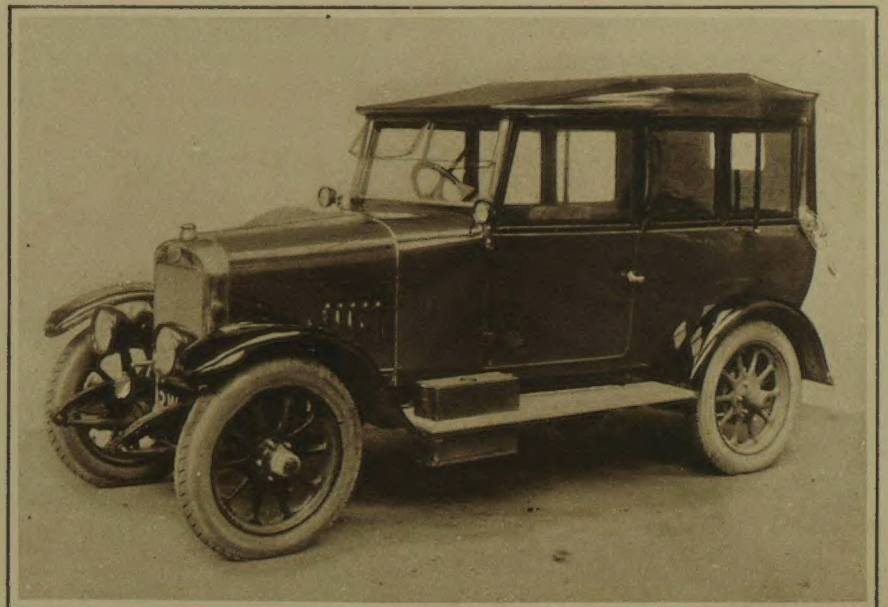
Lanchester (Stand No. 96).

The Lanchester exhibit is always a fascinating one, especially to those who are capable of appreciating the enormous amount of original thought which has gone to make the Lanchester the outstanding car it is. In many respects it is the most unconventional car in the Show, but that is not to say that its designers have flown in the face of accepted practice. On the contrary, it is an example of how the original thought referred to can be adapted to current practice. Whether one regards the larger model, the 40-h.p. car, or its younger and smaller sister,

the "Twenty-one," the critical observer must admire the beauty of design equally with the meticulous care with which it has been carried into effect. Judged on either or both its expressions, the Lanchester must be acknowledged to be one of the world's leading cars. So far as it is possible to see, there have been no changes made in either model since last year. Indeed, it would be difficult to see how changes could with advantage be made. True, certain detail improvements have been made, all tending towards increased efficiency, but these are not discernible to the casual eye. The Lanchester is a car only for the wealthy, but it is one that every visitor ought to see, if only as a matter of interest.



USED TO TEST 895 BY 165 MM. "BAL-LON-ETTE" LOW-PRESSURE CORD TYRES: THE 25-50-H.P. ARGYLL.



SOLD FOR £270: THE 10-20-H.P. FOUR-SEATER FOUR-CYLINDER CLULEY, AT OLYMPIA.